

Hospital food poisoning report 'tells of appalling conditions'

By Nicholas Timmins, Social Services Correspondent

Devastating criticism of the management of Stanley Royd psychiatric hospital in Wakefield, both during the outbreak of food poisoning in 1984 which killed 19 elderly patients and infected more than 400 patients and staff, is expected next week with publication of the report of the public inquiry into the affair.

Disclosure by juror halts trial

The trial in which a Saudi Arabian prince and seven others are accused of drug-smuggling charges was halted yesterday after a woman juror said she recognized two people in the public gallery and names on exhibits.

Hearing blew SAS colonel's cover

A retired SAS colonel who was the alleged target of a bomb plot had his identity revealed in court to defend the actions of his men, a jury was told yesterday.

£250,000 for soldier blinded by IRA bomb

By Tim Jones

A former soldier blinded for life by an IRA bomb has been awarded compensation of £250,000 by the Northern Ireland Office. It is believed to be the largest sum ever awarded to a member of the defence forces injured on active service.



A wedding day photograph, at St Mary's Church, Plymouth, of Andrew Bull, his former nurse, now wife, Nicky Walker.

Mr Andrew Bull aged 22, a former private in the Royal Regiment of Wales, was part of a joint Royal Ulster Constabulary-Army patrol which walked into a carefully-laid IRA ambush on the Falls Road in Belfast shortly before midnight on November 23, 1983.

Armed officers on standby for four hours before riots

By Stewart Tendler, Crime Reporter

Scotland Yard officers equipped with CS gas and plastic bullets were waiting in reserve near Tottenham for possible trouble nearly five hours before the riot at Broadwater Farm Estate last October, it was disclosed yesterday.

The decision to call out members of D11, the specialist firearms branch, was taken on the morning of Sunday 6, according to police sources. The officers mustered at 2.30pm at a depot and reached a holding centre near Tottenham at about 4pm. The riot started shortly after 7pm.

Police 'harassment' of estate residents

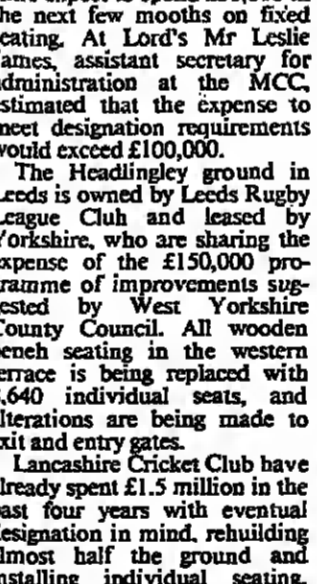
By Rupert Morris

Tottenham police were accused yesterday of systematic intimidation of the residents of the Broadwater Farm estate since the riot there last October, when police Constable Keith Blyklock was killed.

Clubs count the cost of safety at sports grounds

By Robin Young

Sports clubs and sporting venue proprietors were generally pleased at Mr Justice Popplewell's recommendations of safety at sports grounds, which are less stringent than many sporting organizations had expected.



Mr Justice Popplewell, who wants more powers for the police.

In the Gola League: Bath City (20,000); Boston United (15,000); Cheltenham (13,000); Kettering (14,000); Nuneaton (18,500); Walsington (15,000); and Wycombe Wanderers (14,000).

shire expect to spend £30,000 in the next few months on fixed seating. At Lord's Mr Leslie James, assistant secretary for administration at the MCC, estimated that the expense to meet design requirements would exceed £100,000.

The Headingly ground in Leeds is owned by Leeds Rugby League Club and leased by Yorkshire, who are sharing the expense of the £150,000 programme of improvements suggested by West Yorkshire County Council.

Murder charge man's legacy

Mr Nevill Bamber, the magistrate shot dead at his farmhouse with his wife, daughter and twin grandsons, left £382,586 net in his will published yesterday.

Heathrow blow for taxi driver

A taxi driver failed to secure a High Court injunction yesterday to lift the 50p levy on taxis using Heathrow airport.

Another helping of biggest pie

The villagers of Denby Dale, near Huddersfield, West Yorkshire have voted overwhelmingly in favour of baking another enormous meat and potato pie.

Cross-channel electricity link

The United Kingdom joined the European electricity network yesterday when a £760 million 45-kilometre link with France was switched on.

Extradition is ordered

Serena de Piza, aged 22, who is accused in Italy of involvement in a £10,000 bank raid in Rome in October 1982 and forging a passport in 1983, is to be extradited to face trial.

'Stringent checks needed to restore confidence'

By Philip Webster, Political Reporter

A big improvement in safety and fire standards at outdoor and indoor sports facilities was proposed yesterday by the Popplewell inquiry on crowd safety, as a means of restoring the confidence of the millions of people who attend sporting events in Britain.

bound to be arbitrary, but were an attempt "to balance the expense of inspection against a reasonable degree of safety".

His "sad" conclusion was that "there has always been violence in the world and that there always will be". However, preventive measures could be taken and he recommended sharply strengthened police powers.

ground, to enable the police to take action much earlier than under the present law. The offence would cover throwing missiles, running on to the pitch, seeking to climb over or pull down a perimeter fence, shining a mirror at a batsman, throwing cans on to a pitch or interfering with a greyhound or horse race.

The police should also be given the power to arrest a hooligan after the offence on the basis of identifications made by closed circuit television.

Miner tells of cement pit ordeal

From Craig Seton, Birmingham

A miner yesterday described how he was trapped up to his neck in dry cement for nearly five hours as a colleague acted as a human barrier to stop him being engulfed and firemen dug with their hands to free him.

Concern on accident report rules

By Patricia Clough

The British Medical Association expressed concern yesterday over new regulations that will require employers to report work-related diseases among their staff to the Health and Safety Executive and local authorities.

Dentist to lose £5,000

A Norfolk dentist who wanted to carry out unnecessary treatment on a middle-aged woman has had £5,000 withheld from his salary as a punishment. He is also being asked to submit his work for the next two years to the Dental Estimates Board for scrutiny.

Chief Jonathan's silence fuels fears of shake-up among Lesotho rulers

From Ray Kennedy, Johannesburg

The continuing silence of Chief Lesbia Jopahani, Prime Minister of Lesotho, fuelled speculation yesterday that a shake-up is imminent in the power structure of the tiny country, which is virtually unopposed from South Africa.

Shell Oil singled out for anti-apartheid campaign

From Christopher Thomas, Washington

Shell Oil is under attack in the United States by anti-apartheid demonstrators. Tens of thousands of Shell credit cards are being ceremoniously destroyed, 10 million trade unionists are being urged by the AFL-CIO union federation not to buy Shell petrol, and peaceful demonstrators have just ended a one-day sit-in at Shell's offices in Washington.

The protesters have a professional eye for publicity: they are the same people who started the daily demonstration outside the South African Embassy in Washington 14 months ago, which helped enormously in thrusting the apartheid issue on to American front pages last year.

Protesters continue to be arrested for a few hours for blocking a local law banning protests within 500 yards of an embassy.

The Shell protest is designed to sensitize the American people to the role corporations play in supporting apartheid.

Mr Glen McKeown, a spokesman for TransAfrica, a predominantly black foreign-policy lobbying group, said:

official level. Mr Botha's statement indicated that South Africa was prepared to settle for nothing less than a formal pact under which Lesotho would take steps to outlaw African National Congress guerrillas.

Despite Lesotho's claims that it gives shelter only to ANC non-combatant refugees, Pretoria is convinced that it is allowing machinery to be established for guerrilla raids into the neighbouring Orange Free State, Natal and the Eastern Cape province.

In terms of size and economic dependence, Lesotho, which is completely surrounded by South Africa, is the most vulnerable of South Africa's neighbours.

But its strategic location and Chief Jonathan's increasingly close ties with Communist countries - both Moscow and Peking have a diplomatic presence in Maseru - gives South Africa the jitters.

Yesterday, there were signs that Pretoria was considering changing its tactics from heavy-handed bullying to more subtle political moves designed to undermine Chief Jonathan, who has ruled the country diplomatically since independence.

Maseru diplomats notes with interest that at the height of the stage of his office on Wednesday, Chief Jonathan met the monarch, King Moshoeshoe II, for lunch. The King, who is 47, has throughout his 16-year-reign shunned political involvement and left the running of the country to Chief Jonathan.

But it is believed that a pro-royalist faction in the Government is urging the King to take a more active role.

Five opposition politicians arrested on Chief Jonathan's orders after they held talks last week with Mr Botha, urged that talks should be held between the King and President Botha of South Africa.



Colonel Gadafi addressing the youth rally in Tripoli at which he said Libya would train and arm Arabs for suicide and terrorist missions.

Dissident questioned over peace appeal

From Roger Boyes, Warsaw

The pursuit of peace was the focus of interest yesterday both in the Victoria Hotel, in Warsaw where 200 foreign intellectuals gathered to hear a special message from Mr Mikhail Gorbachev, the Soviet leader, in the Polish secret police headquarters where a leading dissident, Jacek Kuron, was questioned about an open letter appealing for peace with human rights.

The security police pounced some hours before the World Congress of Intellectuals for Peace settled down to discussing the future of the planet. Mr Kuron, who had been planning a press conference to publicize an appeal from Poland's dissident community, and Mr Janusz Onysiewicz, a spokesman for Solidarity, were picked up at their homes and taken to Rakowicka Street, home of the secret police.

The dissidents were unhappy about the presence of the international intellectuals, whose number included only a very few prominent Western writers or thinkers, at a time when senior university staff were being displaced by the authorities and when some 200 political offenders were still in jail. Their appeal, signed by

Training in terror offer by Gadafi

Tripoli (NYT) - Colonel Gadafi, the Libyan leader, said Libya would train, arm and protect Arab guerrillas and other Arab volunteers for "suicide and terrorist missions", and make his country a "base for the liberation for Palestine".

He made the declaration in a two-hour speech to 3,000 young people at the People's Congress building in Tripoli on Wednesday night.

The speech was an abrupt about-face in tone and substance from his remarks in recent days. They had been for the most part, somewhat conciliatory toward the United States.

In interviews and public speeches in the past two weeks, Colonel Gadafi has denied American assertions that Libya was involved in the airport massacres in Rome and Vienna in which 19 people were killed.

In his speech, however, he offered Libya as a base of operations for terrorist groups and suicide squads.

Referring to resolutions adopted in recent days by Libyan People's Congresses and pro-Libyan Arab groups calling for the formation of suicide squads, he said: "I accept all their decisions".

Philippines election campaign

Opposition activists die in hail of bullets

From Paul Routledge, Manila

The Philippines presidential election continues its bloody course with the murder of two opposition party workers in Tarlac province, north of the capital.

Mr Jeremias de Jesus, aged 49, chairman of the local Philippine Democratic Party (LDP) - Laban Party which endorses the candidature of Mrs Corason Aquino, and his driver, Mr Alberto Briones, died in a hail of bullets. Two others in the car were left for dead.

The survivors said their cars were stopped by a lone gunman dressed in fatigues of the kind normally worn by the Government's paramilitary Civil Home Defence Force, which has often been accused of random assassinations of opposition activists.

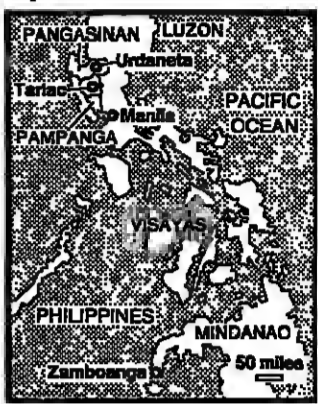
The murders, which took place as the four men were out inspecting voter registration lists on the day officially set aside for that purpose, were immediately classified by aides of Mrs Aquino yesterday as "obviously political".

Another, unnamed opposition worker is said to have been killed in nearby Pampanga province earlier this week. Apart from the campaign casualties, more than 20 soldiers, guerrillas and civilians have died in the intensifying communist insurgency in Mindanao since over the past four days.

Mr Raul Contreras, spokesman for the Aquino campaign, disclosed that Mr de Jesus had received threats to "stop working for Cory (Mrs Aquino) - or else" from armed men.

"All our workers there, particularly the registration inspectors, have received the same threats", he went on.

Mr de Jesus was a prominent political figure in the home province of Benigno Aquino, husband of the opposition contender murdered at Manila airport 1983.



Libel case MEP blames 'occult organization'

From Richard Owen, Strasbourg

M Gustave Pordea, the French MEP facing accusations about his political allegiance, yesterday called for "merciless condemnation" of *The Sunday Times*, which published a detailed account of the allegations last month.

M Pordea, a Romanian-born naturalised Frenchman, was said to have got M Jean Marie Le Pen, the right-wing French MEP, to help him obtain a place on the National Front list in the last European parliamentary elections in June 1984.

M Pordea said that the allegations amounted to a "violent and low-class attack" on him.

M Le Pen and M Pordea said on Tuesday that they intended to sue *The Sunday Times* and Mr Rupert Murdoch, the newspaper's proprietor, for libel through the British courts.

Mr Lomas, who had called for an inquiry into the allegations, said he welcomed the announcement of an inquiry by the Parliament's credentials committee and hoped it would report back by the next session next month.

Australian croc claims human victim

Sydney - Fears that a woman who disappeared while paddling in a north Australia creek had been the victim of a giant crocodile were confirmed yesterday with the discovery of human remains in a crocodile's stomach (Stephen Taylor writes).

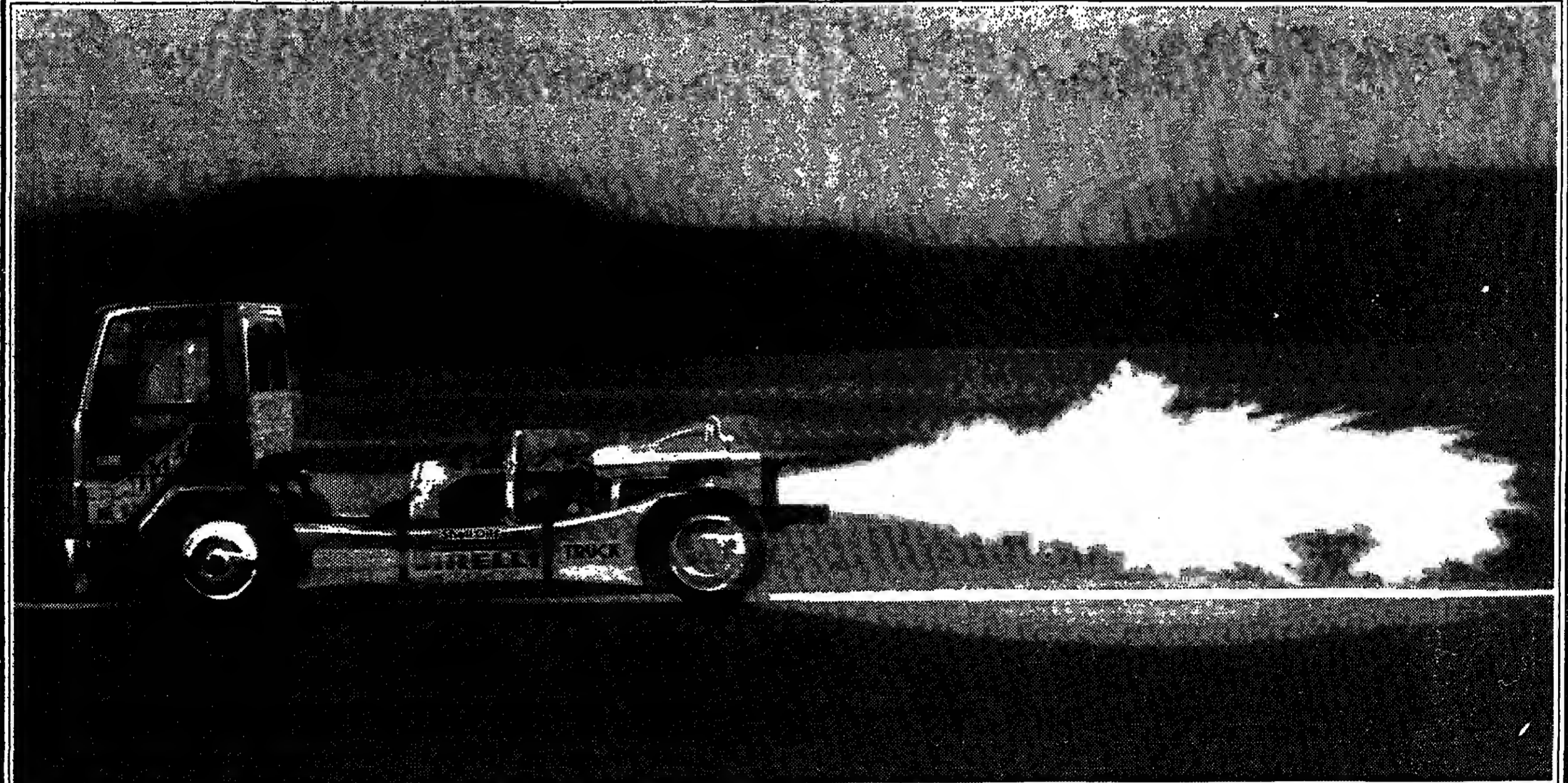
Police in Queensland said a 15ft saltwater crocodile which had been trapped and cut open contained what is believed to be fingernails, toenails and bones.

The remains are thought to be those of Mrs. Beryl Wruck, who was wading in a creek with friends just before Christmas when, according to witnesses, she vanished without a sound.

Her disappearance prompted the Queensland Government this week to move all crocodiles from local rivers to reptile farms, despite objections from environmentalists.

Australia's northern rivers are the habitat of estuarine crocodiles, the largest and most fearsome of reptiles. According to the *Guinness Book of Records*, the second largest of the species on record, a monster of more than 28ft was caught in the Norman River in 1957.

Comparatively few people have been killed in Australia by these creatures, however. Mrs Wruck was the sixth crocodile victim since 1972.



Steve's abnormal load.

The strange contraption you see above is Steve Murty's Pirelli Pro-Jet Truck. And it is designed to deliver its cargo a distance of exactly 1/4 mile in around 10 seconds with a terminal velocity of over 176 mph. Of course the cargo it carries only consists of a Rolls Royce Avon gas turbine on the back and the intrepid Mr. Murty in the cab.

Happily, the jet-engine is lubricated by AeroShell turbine oil 390. Mr. Murty may take his truck as fast as he could possibly wish to, safe in the knowledge that our oil will be behind him all the way. Although we cannot promise to give every truck fleet this kind of performance, our lubricants give unsurpassed protection to conventional transport throughout Britain.

Shell Lubricants is able, and willing to offer help and advice, on any aspect of lubrication. That's why we have set up our new contact service, so that with just a phone call we can arrange all the expert help and advice you could possibly want throughout the U.K. You can get a price, place an order, arrange delivery. Just call your nearest Shell Lubricants U.K. Marketing Centre, quoting the reference number shown. Whether your call concerns heavy or light industry, transport, agriculture, mining, manufacturing or private motoring - whatever your needs, you'll find you can always trust Shell Lubricants to deliver.

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US response ● Russian's London talks ● Geneva meeting

Reagan welcome for Gorbachov's nuclear proposal

From Michael Binyon, Washington

In a careful statement clearly intended to build on the momentum established at the Geneva summit, President Reagan has welcomed Mr Gorbachov's three-stage plan to eliminate nuclear weapons...



The chief Soviet arms negotiator, Mr Viktor Karpov (right), welcoming his US opposite number, Mr Max Kampelman, to the Soviet mission in Geneva yesterday.

Interim accord possible - Karpov

From Alan McGregor, Geneva

Voicing hopes that arms control negotiations can now make tangible progress, American and Soviet delegates yesterday embarked on their fourth round of talks on American and Soviet missiles in Europe...

Star Wars saved from budget cuts

From Christopher Thomas, Washington

President Reagan has ordered his controversial Strategic Defence Initiative project to be spared from wide-ranging Pentagon budget cuts...

Top Soviet official to visit Britain

By Nicholas Ashford, Diplomatic Correspondent

Mr Nikolai Ryzhov, a Soviet deputy Foreign Minister, is due in London on Monday for talks with senior Foreign Office officials...

Four days of fighting Pragmatist gains upper hand as Moscow's friends fall out

By Nicholas Ashford, Diplomatic Correspondent

As the fighting between rival factions in South Yemen began to subside yesterday, Western analysts were trying to assess the long-term political impact of the coup attempt on a country which has been the Soviet Union's staunchest ally...

French right's poll manifesto presents a moderate image

From Diana Geddes, Paris

With two months to go before the French election, the two main opposition parties, the Gaullist RPR and the centre-right UDF, yesterday unveiled the joint programme they intend to introduce if returned to power on March 16...

Cuts promised in taxes, no pledge on jobs

Also to be lifted as soon as possible. A key plank of the electoral platform has been a reduction in taxes and other compulsory levies...

More cautious approach on privatization

Ultra-liberal statements of some leaders in the past. On privatization, for example, which at one time looked as if it would be applied to every competitive company...

Africans unite to fight famine

Nairobi - The presidents of Ethiopia, Djibouti, Kenya, Somalia, Sudan and Uganda formally established an inter-governmental authority...

It was a gesture intended to show the world that they are working together to overcome conditions which produced the disastrous 1984 African drought and famine...

Doe dissolves military court

Monrovia (AFP) - President Samuel Doe of Liberia has dissolved the special military tribunal and all its subordinate tribunals created under his former military regime...

Hong Kong fire

Hong Kong (AFP) - Fourteen tourists, including Americans, Australians and Canadians, were injured in a fire at a Hong Kong hotel which police said was started deliberately...

Romanians flee

Belgrade (Reuters) - About 2,000 Soviet bloc refugees sought asylum in Yugoslavia last year, more than half of them Romanians fleeing harsh living conditions in their homeland, according to UN figures...

Maids 'abused'

Jakarta (Reuters) - Indonesia announced moves aimed at cutting the number of maids working in Saudi Arabia after reports that some had been mistreated and sexually abused by their Arab employers...

Pilots grounded

Khartoum (AFP) - Sudan Airways pilots ended a week-long strike in support of demands for management changes but were unable to fly anywhere because of another strike by technical staff...

Boxer charged

Mexico City (AP) - The former world bantamweight champion, Ruben Olivares, has been arrested and accused of stealing about £180 and two pistols. He denies the charges...

Crew missing

Gijon, Spain (Reuters) - Coastguards were searching for three missing crew of a cargo ship that sank in a storm in the Bay of Biscay. One man died after being rescued...

Sporting chance

Oslo (Reuters) - The International Olympic Committee has been nominated for the 1986 Nobel Peace Prize for bringing peace over the world together in peace...

Pop music ban

Belgrade (AP) - Bulgaria has banned "decadent" Western and other pop music from its 450 discos, the Yugoslav news agency reported from Sofia...

Monk jailed

Bordeaux (AFP) - A former mercenary, Pierre Rouart, aged 46, who became a probationer in a momentary lapse, was sentenced to a year in prison for stealing and selling his firearms...

Big cut in Israel inflation rate

From Ian Murray, Jerusalem

Israel's runaway inflation is being brought under control. Figures for 1985 show a sharp fall in the rate at which prices rose from the moment Government introduced a price and wage freeze last August...

Peking lifts its grain price offers

From Mary Lee, Peking

Peking has promised to pay higher prices for contracted grain while asking those provinces producing insufficient grain for their populations to fill their needs by buying from other areas at negotiated prices...



Abdul-Fattah Ismail, led pro-Moscow group. Ali Nasser Muhammad, ties with Arab neighbours.

Kohl cautious on projects with France

From Frank Johnson, Bonn

President Mitterrand of France and Chancellor Kohl of West Germany, had one of their frequent meetings yesterday, with the German side wondering, privately, whether there could be many of them...

Algeria votes

Algiers (Reuters) - Nearly 11 million Algerian voters went to the polls in a referendum on whether to give the private sector a bigger role in the socialist system.

MEPs deeply divided on how to reform farming

From Richard Owen, Strasbourg

There were widespread objections to the report's recommendation that since the EEC was spending £5.5 billion on stirring growing agricultural surplus direct export refunds should be expanded to offload the surplus on the world market...

Three killed in Spanish motorway gun battle

From Richard Wigg, Madrid

Three suspected members of an ETA Basque separatist group which has been attacking French lorries passing through the Basque region of Spain have been killed by the paramilitary Civil Guard on the motorway outside San Sebastian, near the French frontier...

DAVID ROBERTS R.A. THE HOLY LAND PRINTS IN ORIGINAL COLOUR. The Connoisseur Gallery 14/15 Halkin Arcade London SW1X 8JT Tel: 01-245 6431

Vertical text on the right edge of the page, including 'Kenn inc polic', 'Centra lake Co', 'Soviet sci depend on', and other fragments.

Kennedy visit spotlights inconsistency in US policy towards Pinochet

From Lake Sagaris, Santiago

Senator Edward Kennedy's visit to Chile, which ended yesterday, raised the hackles of some of the hopes of others, and spotlighted Washington's increasingly ambiguous relationship with President Pinochet's military regime.

Mr Kennedy's visit was part of a tour of several Latin American countries, most of which have recently established or consolidated democratic government.

On his arrival on Wednesday a crowd of about 200 people, carrying enlarged photographs of Mary Jo Kopechne and wearing rubber rings labelled "Chapquidick" around their necks, a reference to the young woman who drowned at Chapquidick in Massachusetts in 1969 - attacked cars entering or leaving the airport, ostensibly looking for Mr Kennedy.

Police did nothing to control the crowd, and several prominent opponents of President Pinochet received minor injuries.

An assistant to Mr Kennedy, Mr Gregory Craig, said he had information indicating that the Government had organized the demonstration, which eventually forced the Senator to go into Santiago in a police helicopter.

Mr Kennedy said the purpose of his visit was to express his "support for the efforts of

responsible groups to seek a peaceful transition to democracy in Chile."

He would be happy to lift the Kennedy Amendment - legislation that prohibits arms sales to Chile by US firms - at the first sign of an improvement in human rights, he said.

He was not in Chile as an official government representative, but opposition leaders interpreted his visit as a sign that US leaders are re-evaluating their country's stance in light of political developments.

The US role in planning and supporting the 1973 military coup was well-documented by the American Congress in the early seventies.

Until his recall towards the end of last year, the Chilean opposition viewed the US Ambassador in Chile, Mr James Theberge, as "the fifth member of the military junta" because his opinions were so similar to those of the Government.

That image changed when Mr Theberge was replaced by Mr Harry Barnes, with his open attitude and outspoken defence of democracy.

Opposition groups have praised this change in style but are quick to criticize the lack of consistency between US words and actions. Washington's support for the constitution drawn up by the regime in 1980 is a case in point.

Opposition leaders and many independent lawyers see it as a form of making military control permanent, but the US sees it as a blueprint for a gradual transition to democracy.

"If they think that this constitution is the basis for a transfer to democracy they are wrong, and we have been trying to convince them of that," said Señor Gabriel Valdes, president of the largest political grouping, the moderate Christian Democratic Party. Like all political parties, it was outlawed after the 1973 coup.

Señor Sergio Bitar, a minister in the Allende Government who lived for many years in the US, said: "I think that recently (the Americans) have perceived that Pinochet is not willing to give up his power, so they are moving towards a position where they will play two horses."

"(They are saying) 'I don't want to be against the military government, and I don't want to be against the opposition.' This is a very ambiguous position."

Señor Bitar believes the primary concern of the US is not a return to democracy, but rather the defence of its considerable economic interests in Chile. About \$7 billion (£4.8 billion) of its \$22 billion foreign debt is owed to American banks.



Mrs Nannuli Shevardnadze (left), wife of the Soviet Foreign Minister, trying on a traditional Japanese kimono in Tokyo, where she is accompanying her husband.

Columbia landing delayed 24 hours

From Mohsin Ali, Washington

The space shuttle Columbia, which was launched 25 days late after seven delays, was told yesterday to postpone its landing for 24 hours until this morning, because of bad weather at the Kennedy Space Centre.

Ground controllers had decided only on Tuesday to cut short Columbia's five-day scientific mission by a day and

bring it back yesterday morning because of a good weather forecast at the landing site.

They had also hoped that an early landing would give engineers more time to prepare for Columbia's next mission, which is scheduled for March 6, and thereby help NASA to maintain a tight schedule, which calls for 15 shuttle launches this year.

This has already been affected because the Challenger shuttle will now blast off on January 25 instead of the original target of January 22. On board will be Sharon McAuliffe, a school teacher.

The mission had a great success on Sunday when the astronauts launched a \$50 million (£35 million) telecommunications satellite for RCA

Soviet-Japanese territorial dispute Hint of progress on Kurile islands

From David Watts, Tokyo

Japan has warned the Soviet Union that if relations are to develop between the two countries there must be a solution of the dispute over the northern Kurile Islands.

The Japanese Foreign Minister, Mr Shintaro Abe, told Mr Eduard Shevardnadze, his Soviet opposite number, over dinner last night that the Japanese people were behind their Government in demanding the return of the islands and "we hope you will make constructive moves towards solving this problem."

The Foreign Ministry have said after the dinner that the two sides had agreed in the final ministerial sessions to work on a joint communique between the two ministers. This appears to indicate progress on the territorial question which had dogged relations between the two countries since the War.

The Foreign Ministry spokesman, however, would not elaborate.

The islands - Etorofu, Kunashiri, Shikotan and the Habomai - were taken by the Russians at the end of the Second World War. The Soviet Union later said they would be returned when a peace treaty was signed. But in recent years, Moscow had denied that there is any unresolved territorial questions.

It is likely that Moscow had now agreed to reopen the question of the islands. Though this is merely a return to the

status quo ante, it will be seen by the Japanese as an important development.

Before the arrival of Mr Shevardnadze the Japanese side said that there would be no communique if there was no progress to report on the question of the islands.

Mr Shevardnadze said at the dinner: "Even more important than the fact that the substance of the conversations has been very satisfactory."

The two sides agreed on the resumption of consultations at foreign minister level, broken off after the 1978 meeting. Mr Abe, who renewed an invitation to Mr Mikhail Gorbachev to visit Japan, will go to Moscow this year, and Mr Shevardnadze is expected to return in 1987.

The Japanese, however, rejected Soviet proposals for a long-term economic agreement, saying that conditions were not right.

In his dinner speech Mr Shevardnadze outlined the substance of Moscow's new nuclear disarmament proposals announced by Mr Gorbachev. Responding to Japanese requests for the withdrawal of SS20 missiles east of the Urals, Mr Shevardnadze said that their number had been frozen.

As soon as the number of missiles facing the Soviet Union "from this part of the world goes down, the number of missiles in the eastern part of our country will be reduced," he stated.

US-Nicaragua talks sought

Central Americans take Contadora line

From John Carlini, Guatemala City

In an apparent distancing from Washington, all five Central American governments have stated their resolve to back a call from the Contadora Group for a more independent line towards US policy in the region.

Last weekend the foreign ministers of the Contadora nations - Mexico, Colombia, Panama and Venezuela - met in the Venezuelan town of Caraballeda in an effort to breathe life into what many perceive to be a moribund peace initiative.

With the active support of Argentina, Brazil, Uruguay and Peru, the Contadora Group put out what has become known as the Caraballeda Declaration.



Rica, say that it is not only Washington that must make concessions. They insist on an end to the Soviet-Cuban involvement in Nicaragua and call also on the Sandinistas to stop providing El Salvador's left wing guerrillas with what President Duarte this week called "an operation centre."

Most significant, it is widely felt, is this Central American consensus on the need for the US to talk to Nicaragua. On Wednesday, President Ortega, of Nicaragua, reiterated an invitation made late last year to President Reagan to visit Nicaragua.

"We'll even allow President Reagan in without a visa," President Ortega said, smiling, and added, beaming broadly: "But also without his troops."

He was talking in Guatemala City after meeting the president of Guatemala, El Salvador, Panama and Colombia, a most unusual event organized by the newly installed Guatemalan President, Señor Vinicio Cerzo, whose inauguration on Tuesday the presidents had attended.

President Cerzo, who now leads the most genuinely independent-minded Central American nation, has been central to the promotion of what appears to be a new independent spirit among the region's governments.

It was he who declared in his inaugural speech that the Central Americans should work out their problems "on their own terms." He then put forward the idea of a regional presidential summit later this year in the Guatemalan town of Esquipulas, a well-known Christian shrine on the borders with Honduras and El Salvador.

It appeared after Wednesday's meeting that the five Central American governments had all agreed to take part in the proposed summit.

A call was made by President Cerzo for the creation of a Central American response, but diplomats are sceptical that the region's governments will be able to muster the resources, and the political will, to go through with the idea.

Soviet scientists' pay to depend on performance

From Christopher Walker, Moscow

In a novel attempt to help bridge the wide technology gap between East and West, the Soviet Union is planning to introduce an incentive-based wages system designed to improve the performance of scientists, technologists, and industrial designers.

The decision to scrap the present system, under which wages for employees in the high technology field are determined solely by academic degree and length of service, is understood to have been approved personally by Mr Mikhail Gorbachev, the Soviet leader, who is pledged to streamlining the sluggish Soviet economy.

The existence of the new scheme, which was agreed at a recent meeting of the Communist Party Central Committee, was disclosed in the latest edition of the weekly *Liternaya Gazeta*.

Western diplomats were examining details of the plan closely yesterday because many believe it may provide the model for other industries, in which Mr Gorbachev is hoping to improve performance greatly without resorting to experiments which stray too close to the principles of the market

economy.

Under the scheme, redundancies of 6 to 10 per cent of the total scientific work force are envisaged. This is also a novel proposition in a country where full employment is guaranteed under the constitution.

"Those who do not work or who work badly, regardless of their titles or length of service, will be shifted to positions they deserve," the article said.

Almost 90 per cent of Soviet designers and technologists and all members of the prestigious Academy of Sciences will be affected. The wage of a scientist with a degree will now depend on the results of his labour, the effectiveness of his researches, their scientific and economic importance and his personal impact in securing the realization of his ideas," explained Mr V. D. Kharin, a senior official from the State Committee on Labour and Social Problems.

Mr Kharin added: "The aim of the new system is to get rid of all the lazy people and to pay more to those who are talented and ready to work hard. At the first stage of this system there will be certain difficulties with finding occupations for those who are dismissed."

Shaw Carpets plc mill at Darton, near Barnsley produces 400,000 square metres of carpeting every week. This means large quantities of steam are necessary for the dyeing process and for space heating.

Facing fuel costs of over £1 million a year, the company commissioned a feasibility study that showed this figure could be substantially reduced by switching from fuel oil to coal.

But one question remained to be answered: the capital cost of the change-over.

This problem was solved by installing boiler modules. These are a breakthrough in coal-fired boiler packages, providing total flexibility as they can be installed with a variety of boiler types, ratings and come singly or in multiples to meet individual requirements.

They are delivered on-site in three sections, the boiler, the housing and the bunker. Construction and installation work is fast and easy and all the user has to provide are the necessary service connections. The supplier retains ownership of the module, freeing the customer from heavy capital investment. Water and steam are simply bought on a metered basis. In the case of Shaw Carpets, four Associated Heat Services Energy Capsules, fitted with horizontal Shell boilers rated at 16,000 lb/hour of steam, will use about 14,000 tonnes of washed singles coal per year.

Most vital of all was a significant cut in the company's annual fuel bill. Shaw Carpets have joined that growing sector of British Industry who have proved that converting to British Coal turns fuel costs into profits.

The cheapest source of energy

British coal costs less than other fuels. And the NCB intends to make sure coal prices remain competitive.

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British coal leads the world in combustion technology and methods of coal and ash handling. To maintain coal supplies there is a nationwide network of distributors who are strategically situated to give advice and provide an efficient service to industry.

Real help with conversion costs

The government's confidence in the coal industry is demonstrated by the extension of the coal firing grant scheme until at least June 1987. The current limit of £75 million on

total grants has been lifted. This scheme, with the backing of European loans, creates a really attractive financial package.

A final word from Malcolm Edwards, Commercial Director of NCB: "We intend to keep British coal competitive and by reducing our costs retain attractive differentials. This is good news for all our customers. Let us talk - we can do business together."

For further information please fill in the coupon and send it to the Industrial Branch, Marketing Department, National Coal Board, Hobart House, Grosvenor Place, London SW1X 7AE.

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9. Front wheel drive.

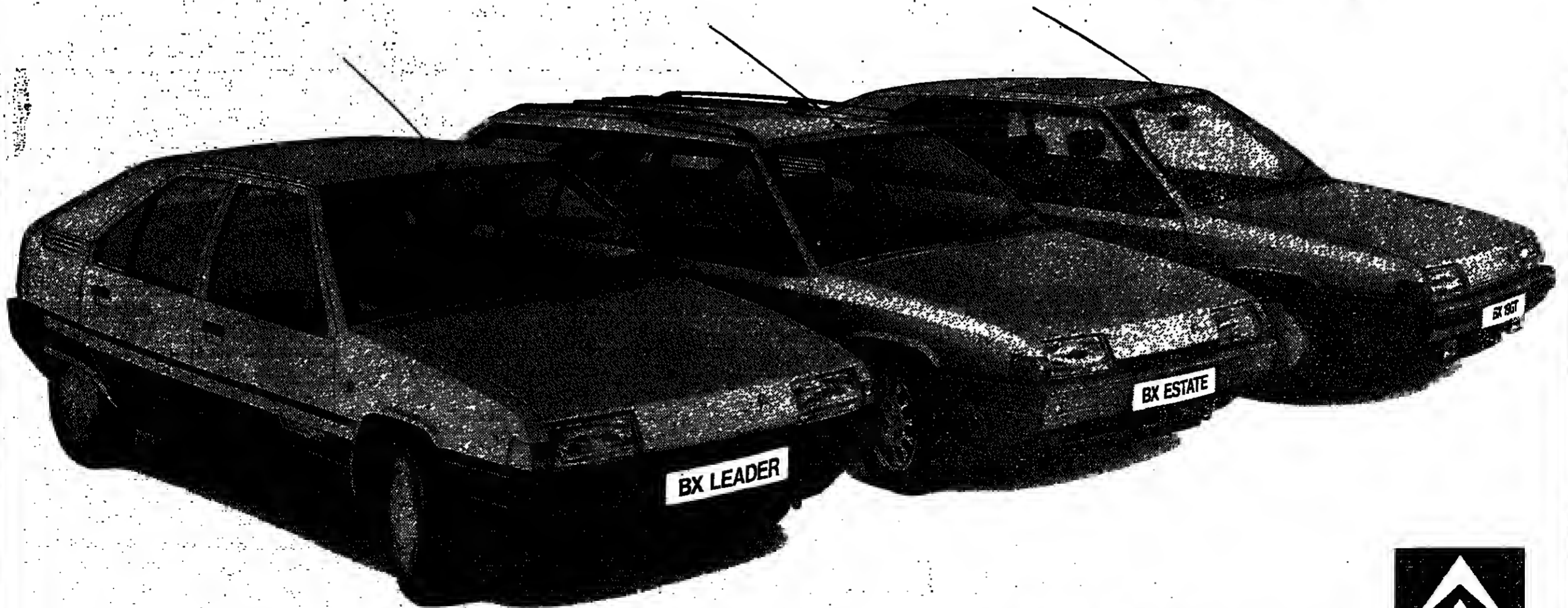
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Star wars to save our countryside

- Famous names from the showbusiness world are putting their weight behind the conservation drive as Britain turns into a nation of outdoor converts.
- In the past 15 years membership of the National Trust has risen from 315,000 to 1.3 million, the Royal Society for the Protection of Birds from 98,000 to 466,000, while the Ramblers' Association has doubled to 44,000.
- Since the passage of the 1981 Wildlife and Countryside Act the environment has also found itself promoted to the first division of political preoccupations. Alan Franks talks to four of the celebrities

Magnus Magnusson, quizmaster and president of the Royal Society for the Protection of Birds, is perhaps best known to the British public for his role as chairman of BBC television's *Mastermind*. However, his interest in ornithology can be traced back rather further than his career in broadcasting.

Magnusson, who describes himself as a migrant species from Iceland, won a gold medal from the RSPB at the age of 14 for an essay he wrote on the mating habits of the blackbird, after rising early each morning with his field glasses to watch and analyse the birds' courtship display.

"If I, by virtue of fame or whatever you want to call it, can help to raise the public awareness of the countryside, then I'm only too glad," he says.

"However, I do think that there is now a danger that the conservationist lobby is becoming too pushy. It is not enough to be a TV celebrity and go around saying 'Hands off this or that'. It should be a rather more gradual and locally involved process.

"What I mean is that we must not acquire the bitterness of the anti-smoking lobby, for example, which is very much about us and them."

"The other thing I would say is that one shouldn't keep looking all the time towards public mooney to help the cause of conservation. I agree that it's very nice when you have it, but you shouldn't rely on the stuff."

"The great honour as far as I'm concerned will be to be president of the RSPB during its centenary year in 1987. And by that time I hope I won't be quite so busy with my television work."



Magnus Magnusson: 'We can help raise public awareness'



David Bellamy: 'Sad business'

David Bellamy, president of the Youth Hostels Association, maintains that the initials YHA should also stand for 'Your Heritage Areas'. The whole concept of "the hostel", he argues, is antiquated, signifying some institution with spartan accommodation and starchy wardens.

It is oow time, he says, for the association to drag itself into the 1980s, offering not only that old style amenity but also a more modern, "almost Trust House Forte version".

Bellamy has also held a number of other positions within environmental movements, including the Udderwater Conservation Society.

He recalls the hostel in Aviemore, Inverness-shire, which he first visited in his youth: "There were 40 pairs of socks drying on the range where you

were meant to do your cooking. But I learned one hell of a lot from the old blokes there - the ones who knew everything about the conditions in the hills. My first tent, I can remember, cost 30 shillings, but we didn't freeze to death. We got on all right. Today you have this rather sad business that you have to be taught about everything formally instructed.

"The YHA has immense resources. They can keep all the wonderment of those old hostels and all mod cons.

"As a celebrity, I don't mind being used. Every day I get about 60 letters of which at least 25 ask if they can make use of my name in some way. That's fine. I believe that the next 30 years will be the most important ever in the history of debate about the countryside. We have this thing called television, and we haven't even started yet to use it properly for education."



Mike Harding on the moors: 'I've alienated a few folk. Getting the balance is the thing'



David Puttnam: 'It's flattering for me to be made president'



David Puttnam, the award-winning film producer, took over the presidency of the Council for the Protection of Rural England in November from Sir Colin Buchanan, a hard act to follow.

One month later he was writing a terse letter to the Prime Minister and the three other party leaders sitting out his own agenda for the conservation debate and so declaring himself one of the most politically active figureheads of the bodies concerned.

Like Mike Harding at the Ramblers' Association, Putnam's appoint-

ment may seem incongruous, but arises from a long-standing interest in the countryside.

"For me, conservation in the 1960s was a sort of hip issue. I was aware then that if a fashion comes in it is just as likely to go out again. That is why a serious body such as the CPRE is so important, and indeed why it is flattering for someone like me who goes around shooting his mouth off to be made president.

"When I think about the arts and the environment, there is a way in which they seem to fit together. As a producer, or as a conservationist, you can't change the furniture of people's minds. But you can attempt to shift it around a bit.

"And that, I suppose, is the role of the communicator. If I think of a film like *Local Hero*, I am aware of the fact that environment was a subtext of the whole project."



Mike Harding, president of the Ramblers' Association, may be a renowned stand-up comic and singer of ribald songs, but he is also a determined Dalesman and walker of his local hills.

His appointment as president of the Ramblers' Association in succession to Lord Melchett, raised some eyebrows among the venerably tweeded membership, but a year into his tenure he appears to have wooed them round.

When Harding considers the issues of conservation he takes into account everything from the quarrying of the Peak District to the destruction of the green belt.

"I also have a great concern for the future of our ten national parks," he says. "I am terribly aware of how the dreams and high perceptions of our great political thinkers have somehow not been carried through."

"I see my brief as being twofold: firstly to work for the association itself and secondly to expose my own *bêtes noires*, by which I mean those interests which are trying to exploit the last vestiges of Upland Britain."

"At one time it was unknown for actors or people of that sort to express their opinions on public matters, but today the man in the street is more aware than ever before of environmental matters and that makes it more acceptable.

"In the Peaks you have companies like Rio Tinto Zinc and ICI who are responsible for taking whole loads of stuff away from the area. Yes, I know it's always been done. But you see, once upon a time, the benefit was local, whereas now it's become multinational."

"People say, 'Oh it's only a little bit, only a small quarry'. I want to hammer home the point that the cumulative effect is potentially disastrous.

"I know that here in the Dales I've alienated a few folk with my views, I've always said that I don't want to see people thrown out of their jobs. Getting a proper balance - that's the thing."

Whisper campaign to stop shoplifting

A revolutionary and controversial security system is poised to make its appearance in the high street this year. Aimed at cutting the retail industry's huge shoplifting losses, it uses subliminal messages to "moderate the behaviour of potential thieves."

The manufacturers claim it can reduce theft by 30 per cent which, if true, could cut millions of pounds from retail overheads. Shoplifting in the UK costs retailers an estimated £2 billion a year.

Known as "reinforcement messaging", the new system broadcasts messages like "Be honest - do not steal" over a store's loudspeakers at exactly the threshold of hearing so that it is just audible if you stand next to the speaker. A computer monitors background noise or in-store music and maintains output at a pre-set level. Shoppers and staff are said to receive the messages without realizing it, and to react accordingly.

Subliminal advertising on radio and television is outlawed under the Independent Broadcasting Authority's code of practice, but there are no regulations controlling other kinds of subliminal messages such as this. According to David Tench, legal officer for the Consumers' Association and author of *The Law for Consumers*, this form of reinforcement message is completely lawful.

The impressive claims for its performance are based largely on American studies conducted in Portland, Oregon, where a similar but reportedly less sophisticated system has been in use in two store chains for more than a year. A review by accountants Price Waterhouse, based on six months of tests, revealed that its installation coincided with a marked decrease in theft-related losses. Other branches not using the system, showed no corresponding improvement.

According to Price Waterhouse, gross profit rose by 1.25 per cent in the first test store, while arrests for shoplifting fell by half, although routine security procedures had not changed.

The second chain, using the system in two outlets, reversed a four-year trend, theft falling from 4 to 2 per cent of sales, and by more than that for 30 specially monitored types of merchandise. A more broadly based study, using some 50 retail outlets, showed theft falling by an average of 30 per cent.

Reinforcement messaging has been developed in the UK by a Peterborough company called Subliminal Assistance, which is currently negotiating with at least two national retail chains. Sales director Barrie Hawkins says the first installations will begin this month. At about £5,000, he says, the system's cost is small compared with losses suffered by the average high street store.

Despite its apparent attraction, most of the big retailers are reluctant to discuss the subject, evidently preferring to await the public's reaction. But

Miss Sally Milner, of the Shopkeepers' Trade Association, the retail consortium, is less reticent. She says: "It is not our business to tell individual stores whether or not to install reinforcement messages but we would advise them to treat them with extreme caution."

Her doubts are based partly on the belief that the system will not be well received by shoppers who, she suspects, will regard it as intrusive.

Her opinion is shared by the shop workers' union, USDAW, whose spokesman was "very suspicious of reinforcement messages in shops or anywhere else". He questioned the retailers' right to practise what he termed "the conditioning of customers and staff", calling it a dangerous practice that could be regarded as a form of brain washing.

"We would certainly want any employer to consult fully with us before buying the system", he said.

Speaking for the National Council for Civil Liberties, Miss Sarah Spencer voiced serious doubts about the method. "It is objectionable because it intrudes into personal thoughts", she said. "A less than ethical manufacturer



could abuse the system and I see no feasible way in which it could be regulated by a body that people would trust."

The manufacturer is understandably eager to dispel any stem from the inevitable references to Orwellian "mind control". To this end, the devices would be installed openly with notices at shop entrances, announcing their presence. Shoppers would also be able to check the message for themselves by listening intently to any of the store's loudspeakers. As a third safeguard, the Trading Standards Office is to be invited to examine each system.

The Trading Standards Officer for Cambridgeshire, Mr Christopher Roan, has studied the system. His view is less critical and he finds it both legal and acceptable "provided it is not used for other purposes such as selling products or inducing people to spend more than they intended".

Perhaps surprisingly, no adverse reaction was reported in the US, where similar safeguards were employed.

Roy Carter

CONCISE CROSSWORD (No 851)

ACROSS
1 Mountain range (6)
2 Specimens (6)
3 Ignited (3)
4 Provide provisions (6)
5 Plant swelling (6)
6 Fringed plant (4)
7 Holiday (8)
8 Unjust (6)
9 Winding ski race (6)
10 Tank (8)
11 Faction (4)
12 Carry out (6)
13 Charro (6)
14 Drumland (3)
15 Measure (6)
16 Whole (6)
17 Deep blue (5)
18 African grasslands (6)
19 Overpass (7)
20 Impulsive (5)
21 Among (5)
22 Crocodile river (7)
23 Violent attack (7)
24 Small restaurants (5)
25 Paralysis (5)
26 Comfort (5)

DOWN
1 Exhibitionist (9)
2 Mar 10 Ostracize (11)
3 Trade (13)
4 Sincere (15)
5 Elms (22)
6 Caterwaul (24)
7 Cps (25)
8 Entertainment (28)
9 DOWNS: 1 Felmet (2)
2 Sherry (3)
3 Obscure (4)
4 Statue (6)
5 Finite (7)
6 Steeve (12)
7 Rng (14)
8 Nobility (15)
9 Rim (16)
10 Escudo (17)
11 Get off (18)
12 Dialect (20)
13 Anarak (21)
14 Entree (23)
15 Reek (28)

THE TIMES
SATURDAY
The weekend starts here

The new Cliveden

Its name still conjures images of high society, political intrigue and sexual scandal. Now the magnificent house overlooking the Thames is to become an hotel. William Greaves visits Cliveden in the course of its £2.5 million facelift and describes an establishment where a night's stay could cost as much as £480.

Working design How to plan an office at home

Pacific idyll Exploring Hawaii's little islands

Portfolio £22,000 to be won

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Taxi cabs with all the creature comforts

When he was attacked for the fourth time, New York taxi driver John Feyko decided that enough was enough.

"I was stabbed and beaten three times - all for 160 dollars", he said. "Then one night I was waiting at a traffic light and made the mistake of leaving my cab window open. Someone grabbed my hair and stabbed me in the arm. They didn't get any money, but I knew then that I should look for calmer waters."

He answered an advertisement - "Driver wanted, must love animals" - and is now behind the wheel of a "critter cab". New York's first taxi service exclusively for pets.

In this city one can buy unlined coats for dogs, silver engraved porringers for their dining pleasure, and little shavers called "pooper scoopers" for clearing up their mess. But a gap was recently discovered - they did not have their own taxi service.

Owners could be seen standing faithfully with their pets while taxis sped by refusing to stop for them. Mr Feyko explained: "Most cab drivers won't stop for people with animals. They don't want the smell in the car, they're afraid of being bitten, and if it is raining, animals can make the seats muddy. The next passenger gets his pants dirty - and sees the driver. There's too much risk."

Barbara Meyers was a suffering pet owner. She had been ill herself and was unable to drive her dog Duke, a German Shepherd, from her home in Brooklyn for frequent visits to an animal hospital in Manhattan.

"I had a very difficult time when Duke was ill", she said. "Eventually I recovered and was able to drive him myself. But after he died I started the critter cab service because I didn't want other pet owners to go through the transport difficulties that I had experienced. The idea was

Duke's legacy to me. I feel he wanted me to do it."

Miss Meyers invested \$50,000 and now operates two critter cabs - Chevrolet station wagons - which take pets, with or without their owners, to veterinary surgeons, groomers, hotels, parks, and anywhere else they want to go. There is also an international service dealing with the arrangements for sending pets abroad.

The critter car often takes owners to pet cemeteries to visit the graves of their loved ones. One woman, whose dog is dying, uses the service to take him out of teeming Manhattan to a park in the country where he can enjoy himself for a couple of hours.

The car will also take ageing and ill pets on their "last ride". This is the job that Mr Feyko and a fellow driver Jim Viviano dislike intensely.

"It ruins one whole day when we are driving a pet to be put to sleep," Mr Feyko said. "Barbara prepares us because she knows we hate those assignments."

The service will carry any pet that will fit into the car, but the passengers are usually dogs, cats, birds, guinea pigs and hamsters. Occasionally a boa constrictor goes for a ride.

Said Mr Feyko: "They are very popular pets in Manhattan. They grow to be about 12 to 15ft long and people keep them in empty 50 gallon fish tanks. Of course they are in crates when they travel in our cars."

One owner, stocking up with rawhide lollipops and doughnuts, explained that people preferred not to see dog bones lying on the carpets.

"It doesn't look nice, so we buy rawhide chewy treats in familiar food shapes", he said. "They don't make the place look a mess. We sometimes also buy a pizza made specially for dogs. If the family is having pizza, it's nice for the dog to have something that looks the same."

Penny Symon

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FRIDAY PAGE

Mother in her own image

To Picasso and Man Ray, Lee Miller was a wild beauty. To her son, she was a mystery...

When the fashion model and photographer Lee Miller died in 1977, her estranged son Antony had only a hazy idea of his mother's early life.

It was Roland, who had introduced surrealism to Britain and later founded the Institute of Contemporary Arts, who suggested the idea of a book to Antony when Lee Miller died.

There were boxes and boxes of it, the sort of stuff you might throw on a bonfire without a second thought. Lee had the most extraordinary acquisitive nature.

An antipathy developed between mother and son. During those early years he hardly saw her. When he went away to boarding school, Antony worried that he might fail to recognize his mother if and when she met the holiday train home.



Captivating beauty, Lee Miller photographed in 1943 by David Scherman (left) and in 1930 in Paris by Vogue photographer George Hoyningen-Huene (bottom). Her son Antony was three when she photographed him with Picasso (top) at her Sussex home in 1950.



his mother's early life became more tangible as he printed the thousands of negatives and sorted the letters and documents. It soon became clear that her life had embraced one of the major artistic achievements of the 20th century.

Until the end of the Second World War, Lee Miller's life had been a precarious balance between commitment and self-indulgence.

Some of Lee Miller's best work was as a war correspondent. This photograph of the burgomaster of Leipzig's daughter was taken in 1945.

Born in the United States in 1907 she had become a bewitching sensual beauty. Wherever she went she fell hopelessly in love with her.

She rapidly outgrew New York and set off for Paris to study photography with Man Ray. She was soon his mistress and became absorbed into his circle of surrealist friends.

Her photographs of Dachau shook the world, and she was the first to reach Hitler's bloodstained Berlin.

Jean Cocteau and Tristan Tzara. She lived with Ray for three years. "I was known as Madame Man Ray", she wrote.

Success in New York was abandoned in 1934 when she met and married Aziz Elouadi Bey, a rich Egyptian who took her to live in Egypt.

The fast-moving and unpredictable adventure that war offered seemed to suit her. She covered the liberation of Dachau and Paris for Vogue.

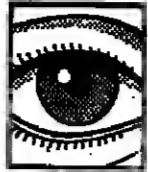
closed book. "Those years were a chapter she had finished with, she didn't want to look back", he says.

He described her as "blond, blue-eyed and responsive". On their second meeting they slept together.

Michael Young The lives of Lee Miller by Antony Penrose is published by Thames and Hudson (£16).

MEDICAL BRIEFING

The clear way forward to save your sight



Over the years, members of the Reform Club in London's Pall Mall have looked forward to the invariably cheerful welcome of Jim Brown, the hall porter.

The acute closed angle glaucoma, with symptoms of a red, painful eye and blurring of vision, is easy to diagnose provided it is not confused with conjunctivitis or an eye injury.

Chronic, open angle glaucoma is much harder to diagnose; its onset can be insidious so that much of the field of vision can be destroyed before the patient notices that anything is amiss.

In other patients, alterations in the appearance of the retina, or a reduction of the field of vision, would alert the examiner to the possibility of glaucoma.

Quick cure for hernias from the front line

At the open singer Placido Domingo (left) had attended Monday's meeting of the International Medical Relief organization in London.

Nicholas Parkhouse, a surgeon from the Middlesex Hospital in London, said that as the medical group was non-political it wanted to operate on normal surgical cases as well as battle casualties.

groin muscles, is equally appropriate for commuters. Paul Jarrett, consultant surgeon at the New Victoria Hospital, Kingston, Surrey, said that he now repairs nearly 85 per cent of hernias without admitting them to hospital.

He recommends that patients should not resume hard physical activities for six weeks, but sedentary workers can return to work as soon as they are comfortable.

Sweet and sour notes to berries

This is the time of year when gardening correspondents write about berry-producing trees and shrubs in the hope that if more are planted birds will be saved from starvation.

Dr John Henry, consultant at the poisons unit at Guy's Hospital, London, said reassuringly that as far as he could discover, no British child has died by eating berries for 30 to 40 years.

Two other common plants, the laburnum and the sweet pea, are potentially dangerous but there is little evidence of serious harm.

Early warning to prevent cirrhosis

Without carrying out a liver biopsy, doctors have little success predicting which heavy drinkers will develop cirrhosis or its precursor, fatty infiltration.

Blood tests give a good indication of how badly the liver is functioning, but little as to the likely outcome. Biopsy, the removal with a needle of a small section of the liver for later examination under a microscope, is associated with the risk of complications, including bleeding.

A research team from St Bartholomew's Hospital, London, and BUPA, the private health service, has started a pilot project which it hopes will lead to the development of a screening technique to enable an accurate assessment of the liver without surgical investigations.

It will then be possible to identify patients who are at greatest risk and justify screening. If necessary they can perhaps be persuaded to stop drinking before cirrhosis occurs.

Dr Thomas Stuttaford

Real men don't drink soda water

Going on the wagon can sometimes leave you high and dry

James McNeill Whistler had dined with friends, enjoying more than his share of alcohol. They were descending the main staircase together when the celebrated painter staggered and, but for the help of fellow guests, would have toppled headlong.

"Who designed this staircase?" demanded Whistler. "Norman Shaw was the architect," said his bemused host. "Why?" "Damn'd teetotaler!" was the outraged response.

I used to consider that to be a brilliant example of wit at its best. But times have changed. I

now believe Whistler to have been little short of a drunken bigot. Why? Let me explain. On Christmas Eve 1982, I turned teetotal. As a result, I quickly discovered that life is generally to be preferred to the preserve of Whistler and his kind. What ever one does, whether at work or play, it's alcohol that causes one's progress.

So why did I quit? Simple. At the tender age of 52 I had finally lost my tolerance for booze; the last decade of my drinking life had been beset with problems. Whereas I had, for years, been able to enjoy the spontaneity of social drinking, I could coast through the pleasures of wine and brandy. Gone, too, are the days when, in the company of a woman, I would be the confident raconteur with sparkling wit (at least, that's what I tried to be).

Towards the end of my drinking days, such occasions were more likely to conclude with no starting glassy-eyed, sweating and trembling as I tried to combat the urge to be sick. Teetotalism, after a quarter of a century's drinking, is a bit like being reborn. The delight of waking with a clean palate, a clear head and a healthy appetite is - forgive me - intoxicating. No more staggering from the bedroom, palming the eyes like Shakespeare's blinded Gloucester and groaning like Lear.

In the days of my youth, mild hangovers were the inevitable but ephemeral price to be paid for the pleasure of the previous evening, swiftly dispelled by a cold shower and a brisk walk. But as my hair turned grey, so my hangovers began to change until, like the inevitability of dawn, I knew I was going to suffer. Bad ones were like rehearsals for death and could last two or three days.

A hair of the dog was about as much use as a glass of bleach and other highly recommended

but something with the absorbent nature of mashed potatoes. It's surprising how few hosts of cocktail parties, press launches and office gatherings provide the convenience of mashed potatoes. Food-drinkers are also an irritant to drink-drinkers. I rapidly discovered that to be with "the boys" in a pub and to talk about food was to promote derisive laughter. "You and your noah" carried the same kind of criticism as that which a parent levels at a child who over-indulges in sweets.

Gone are the days when, with a salt-beef sandwich, I could coast through the pleasures of wine and brandy. Gone, too, are the days when, in the company of a woman, I would be the confident raconteur with sparkling wit (at least, that's what I tried to be).

Now, of course, hangovers are mere memories. I've become smug recalling the time-wasting conversations one used to have while drinking.

So what's the problem, if all this is behind me? Simple. What the hell do I drink instead? You name it, I've tried it, and very boring it is, too. I soon grew disenchanted with sickly sweet fruit juices, even unsweetened ones like tomato juice which I had never liked; endless fizzy-ades and colas, when you are no longer thirsty, turn your tongue to cotton wool.

Unfermented grape or apple juice, or mineral water with crushed ice and a slice of lemon, are passable substitutes when dining, but as social drinks they soon get boring. Angostura bitters and soda water? OK, once in a rare while, but there's always the attendant risk of a naive barman overdoing the



hitters so that the result tastes like fluid from an animal laboratory. Alcohol-free lager? Well, for some reason, it doesn't do to me what it appears to do for those virile guys in TV ads.

There's little left, then, except for Adam's ale and that can cause trouble. A recent visit to a printers produced a situation that was straight out of a Batman cartoon. When told there was no fruit juice or mineral water - which I had asked for in desperation - I settled for a glass of water with ice and lemon.

"Water? WATER?" Exposing myself in a nursery couldn't have produced greater distress from the assembly. Macho-men drinkers are fearful of teetotalers. "I can't buy you a soda water", hissed a colleague, slipping me the money to buy it myself, and sidling further down the bar.

It's when drinking with drinkers that you note, with some surprise, what perceptive things they say: how fatuous is their humour; how they alternate their voices - shouting one minute, mumbling the next; how they seem incapable of standing still; and how they will keep staring as if trying to focus on something behind you. However there are some afflictions for which alcohol is the only solution. Recently I caught a foul cold - a real, king-size job with a lung-cracking cough. One night, in desperation, I broke my fast and tried a glass of good whisky instead of my bedtime milk drink. It was delicious. And there were no after-effects.

Derek Hall

Correction

On the Friday Page of November 29 "How child care has grown up", the number of children in the UK aged under 14 was incorrectly stated. The correct figure is 10.8 million.

Advertisement for Smallbone of Devizes, featuring a 'NOW ON SALE' banner and listing various kitchen and bedroom furniture items with prices and contact information.

Advertisement for HEAL'S SALE, featuring a large illustration of a man in a suit and listing various furniture and home goods with discounts and contact information.



P.O. Box 7, 200 Gray's Inn Road, London WC1X 8EZ. Telephone: 01-837 1234

FOOTBALL LESSONS

There were evident practical lessons to be drawn from the tragic fire at Bradford City football ground on May 11th last year. Mr Justice Popplewell has put his judicial skill to good use in appraising the evidence on the construction of stands and the location of exits and his report, published yesterday, ought to benefit every future user of a soccer ground.

He has also undertaken a voyage of discovery into safety standards at other places of public gathering for sport and entertainment and found a long list of anomalies. He describes how if the Wembley Arena is used for a boxing match it requires local authority licensing but not if the same arena is used to show off animals and riders in the "Horse of the Year Show". Two quite different standards of safety are consequently applied. His recommendations, predictably, require some extension of the boundaries of the regulatory State and considerable extra work for firemen and town halls. He might, perhaps, have made the point that his recommendations will cost money. They will require extra fire personnel and a lot more local authority paperwork; they could hit the finances of small and amateur sports clubs. But such consequences are, rightly, for others to worry about. The lessons of Bradford have been comprehensively read. Mr Justice Popplewell's work deserves the compliment of speedy implementation. He was asked to do more,

however, than simply investigate a major fatal accident. As he wades into hooliganism and the physical and managerial decrepitude of a national sport, the clear lines of his recommendations on fire safety have become muddled. In drawing conclusions from the disgrace of the Heysel Stadium and the afternoon at Birmingham City FC as a representative incident of violence on the terraces he has had to roam far and wide. And yet not far and wide enough. He has given himself the latitude to introduce Seneca into an official report (albeit from the Penguin Classic edition) but not to survey without sentiment the economics of a private enterprise - soccer - which survives only by ransom and pieces of string.

He is willing to entertain at least two new offences which together make a serious dent in the liberty of the subject while restricting the offences to those subjects who frequent soccer grounds. He is not, however, willing to consider the organizational inertia of the Football Association and the absence of first-class management in soccer. Violence in and around grounds is related to the condition of those grounds and their officers. Mr Justice Popplewell's report, while containing much that is sensible for policing the terraces, misses the connection.

Commercial field sports are organized by clubs in soccer by private commercial clubs. There is a danger that the responsibility

for what happens both within football grounds and on their margins is sloughed off by those clubs. Mr Justice Popplewell recognizes the danger but may have compounded the problem. The powers of search he awards, rather too casually, to the police; the crowd discipline to stop racist or obscene abuse; the inviolability of the field of play; these are the business of clubs which invite thousands of fans on their property. The police role should be auxiliary.

It is for the clubs, with the same relationship to the licensing justices as other places of public resort and entertainment, to manage the consumption of alcohol on their grounds. Mr Justice Popplewell, not before time, asks for a review of the extravagant ban on drinks in executive enclosures imposed last year. The soccer clubs must be assisted in their task of curbing soccer-related violence; they cannot remain in business and shirk their tasks of managing, disciplining, educating and at the same time entertaining their fans.

The clubs' collective failure to make progress on a membership scheme is a sorry index of how energetically they are performing those multiple tasks. Mr Justice Popplewell offers them assistance, but perhaps too generously. The new offences he would create could take away from the clubs the last vestiges of their own responsibility for order among their spectators and customers.

TIME FOR TALKS ON SDI

Well packaged offers on arms control have arrived with some regularity in recent months from Moscow, but this time beneath the gift-wrapping there would seem to be something worth looking at. The positive response it has so far elicited from Washington is also to be welcomed, if only because it shows a better understanding than has recently been evident of the impact on public opinion.

The most significant shift in the Soviet position would seem to be Mr Gorbachev's proposal for the elimination of Soviet-American intermediate-range nuclear missiles from Europe within the first eight years of his 15-year plan. Not only does this embrace the "zero option" put up by President Reagan (with little hope of success) more than four years ago, but it leaves to the side the issue of the British and French deterrents. The latter would simply have to "freeze" then prepare to disarm in time for the re-birth of a nuclear-free world in the year 2000.

How seriously Mr Gorbachev contemplates all this remains to be seen. He must know very well that the West is poorly placed to envisage the end of the nuclear age because of the inferiority of its conventional forces - on which it would then have to depend. It is true that President Reagan has spoken in such visionary terms when expounding his Strategic Defence Initiative (SDI). The difference is that

when he refers to the post-missile age, he envisages something to put in their place.

Given that the Russian 15-year plan is unlikely to work, it is hard to imagine the British and French deterrents - in that context anyway. How too would a "freeze" on existing force levels affect Britain's purchase of Trident? As all these points will have been sifted several dozen times in Moscow, one can only speculate over Soviet intentions.

Still, it would seem to represent a shift of some significance and progress is not apparently linked by the Kremlin to American abandonment of its SDI. The Gorbachev proposals have already been tabled at the Geneva talks (which is not always the case with Moscow declarations) and the European INF area now looks the most promising for movement during the present negotiating session.

The extension by three months of the Russian moratorium on nuclear tests must cause some discomfort in Washington and London. Both Britain and the United States are developing nuclear warheads which makes them reluctant to agree, even temporarily, to forgo underground testing, but Mr Gorbachev's recent announcement that the Soviets would be prepared to allow on-site verification of a test ban treaty has removed the most respectable Western objection to signing

such a pact - and left the two countries on shaky moral ground.

Now Mr Gorbachev says he is willing to countenance on-site inspection in support of missile reductions, on the way towards his nuclear-free dream. This helps to make progress in the area of long-range strategic forces also seem possible - especially given the degree of consensus on "deep cuts" of around 50 per cent. There are gaps but they look very bridgeable.

The difficulty here is that the Russians are insisting on curbing the American Star Wars programme as a *sine qua non*. In return the White House, while refusing to negotiate over the SDI, is calling for a serious debate with the Soviet Union on the future of strategic defence.

If the Russians really want to see progress at Geneva they should agree to this. The SDI is here to stay whether they like it or not. They are themselves engaged in research projects which are exploring similar areas of defence. That their response so far has been negative is not perhaps surprising - and there are those who might see this latest Gorbachev initiative as yet another attempt to fuel European criticism of the White House, but the SDI is presenting the world with new concepts which its two most powerful nations need to understand and control.

WANTED: A QUIET TABLE FOR FIVE

The "Group of Five" meeting of the world's top finance ministers in London this coming weekend is turning into exactly the kind of high-profile occasion that their host, the British Chancellor of the Exchequer, had sought to avoid. This was inevitable. The last meeting of these five men, responsible for the financial management of the United States, Japan, West Germany, France and Britain, was deliberately publicized by the participants. At the Plaza Hotel in New York in September, they jointly agreed to try to bring down the dollar and announced this to the world's press and the world's financial markets in order to assist the process.

In this task the Group of Five proved more successful than they expected. They cannot now expect their meetings to sink back into obscurity. Having set their hands to the tiller of the international monetary system, they cannot now pretend to be private passengers meeting for a quiet dinner.

The attempt to meet quietly has anyway been thwarted by the matter-of-fact Japanese. The view from Tokyo is simple. Having effected a desirable

realignment of currencies, cannot the Group of Five now agree on a general lowering of interest rates, which everywhere are causing concern?

This a point of view which deserves support. It should be possible to lower interest rates worldwide without destabilizing exchange rates. Unfortunately, however, the decision to cut interest rates cannot be taken by these five finance ministers in quite the straightforward way in which they agreed to intervene in the currency markets last September.

The spotlight is on Mr James Baker, the US Treasury Secretary. The dollar is the pivot of the world's currency system. Constitutionally, Mr Baker can decide when the Federal Reserve Board may buy or sell dollars; but he does not fix interest rate policy, which remains the sole responsibility of his central bank.

In turn, the "Fed" has the responsibility to manage American domestic monetary policy; and is constrained by the behaviour of US financial markets. While projections for America's federal budget deficit remain so high, it is not easy for

the Fed to cut interest rates. Thus the United States, which initiated last September's agreement, is now seen by other members of the Group of Five as impeding progress.

Perhaps the greatest strain is being felt in the host country for this weekend's meeting. Although talk of lower interest rates worldwide helped to take some of the heat out of British money markets, where early this week it had seemed that yet another rise in interest rates was imminent, British rates remain extremely high, and while American rates remain high, Britain has had difficulty securing the steady appreciation against the dollar envisaged in last September's agreement.

Nevertheless, the Group of Five may have some cause for congratulation. Having insisted for years that central banks could not manage currencies, they have made a fair job of pushing things in the right direction. As for Britain, a Group of Five meeting on home territory will provide a suitable occasion for discussing how its members might help to manage not just the dollar, but small fry like the pound. No wonder the Treasury would rather keep things quiet.

Student grants

From Ms K. J. Alcock
Sir, I am a first-year medical student, receiving no grant from my local education authority, Warwickshire. This means that I also do not receive an equipment grant.

If I were to get one I should be able to buy lab-coats, dissecting instruments, books, microscope slides and a microscope, and a

stethoscope, all paid for by my local authority. As it is, I have to restrict my equipment to the minimum, supplemented by Christmas and birthday presents.

Investigations among my fellow students at Edinburgh University reveal that this is not the case among all non-grant holders. Those from other counties in England and Wales, on the whole, receive an equipment grant regardless of their actual grant.

This, in effect, means that the total amount of grant awarded to a large proportion of students (those studying scientifically related subjects) is at the discretion of the local education authority, and not nationally fixed.

Yours faithfully,
KATHERINE J. ALCOCK,
18 Portland Place,
Leamington Spa,
Warwickshire.

LETTERS TO THE EDITOR

Reasons for unease among the nurses

From the Chairman of the Hammsmith and Queen Charlotte's Special Health Authority

Sir, Trevor Clay's article (January 13) and the Royal College of Nursing's current advertising campaign are based on an understandable concern about the role of senior nurses following the implementation of the Griffiths report. However, the remedy proposed by the RCN - "a director of nursing in every hospital, clinic and health unit, working with the administrator" - fails to take adequate account of two of the most important elements in the Griffiths reorganisation.

Firstly, the creation of general managers with line responsibility for their organisations means that the concept of individual managerial responsibility has replaced the NHS's traditional consensus approach to decision-making and reliance on administration rather than management.

This should help to eliminate the excessive professional pride (engineers, accountants, nurses and doctors have all been guilty from time to time) that has hindered the management of certain disciplines by managers without a qualification in the discipline concerned.

Secondly, most district or special health authorities have two or three local units of management - and a unit manager's responsibilities must include responsibility for nursing. In the average hospital unit nurses are the largest single group of staff and nursing is the largest item in the budget.

Most important of all, nursing decisions, and the effective and sensitive use of nursing resources, will have perhaps the major influence over the quality of patient care. It will be a foolhardy unit manager who ignores nursing advice; however, line responsibility and authority for nursing is properly lodged at this level.

These are significant changes; but there is no serious danger of the erosion of the authority of the ward sister. The "mini-general managers at ward level" feared by Mr Clay will

be (and in some cases already are) the ward sisters themselves.

The changes have more radical implications for senior nurses above the unit level. The nurse on the district management board can no longer have line responsibility for nursing management. And because the staff role of advising on all aspects of nursing policy is not a full-time job for a senior nurse, it is being combined with other responsibilities (for example, in this SHA with personnel and quality assurance).

Not enough nurses have been appointed as general managers during the current reorganisation; this is probably the most important explanation of the current unease amongst the nursing profession. Perhaps the RCN should abandon its current advertising campaign and concentrate its resources on ensuring that the move into general management becomes a natural progression for the senior nurses of the future.

Yours faithfully,
CHRISTOPHER BLAND,
Chairman,
Hammsmith and Queen Charlotte's Special Health Authority,
Hammsmith Hospital,
Du Cane Road, W12.

From Dr D. W. Ryan
Sir, Mr Clay sounds a timely warning (January 13) regarding the relegation of senior nurses from management within the NHS. There are certain problems within the nursing field that can only be perceived and understood by a person with a nurse's particular experience and training.

The concern he expresses is not as far-fetched as some may think and there is a real danger that the exigencies of annual budget trimming that this Government forces on all health authorities will shortly become the sole arbiter of health care.

Yours sincerely,
D. W. RYAN,
63 The Grove,
Gosforth, Newcastle upon Tyne.

Academic freedoms

From Mr Martin Biddle, FBA, and others

Sir, In the matter of the banning of South African archaeologists from the World Archaeological Congress to be held in Southampton in September, by our British colleagues, archaeologists in Britain have remained curiously silent.

News reaches us of large numbers of scholars, at least 115 in the USA, who have withdrawn from the congress in protest; and that the entire delegations from France, the Federal Republic of Germany, Belgium, Holland, Switzerland and Spain will withdraw unless the ban on South Africans is lifted.

The issue is not one of apartheid, which all civilized people must abhor and oppose, but of academic freedom and freedom of association. At present, control of the congress has been wrested from the organiza-

ers by political activists in Southampton.

If the executive of the organizing committee is unable or unwilling to take control back into its own hands, then the members of the profession should do so. This they can do by letting it be known that they will withdraw from the congress unless the ban is lifted.

Failure to do so carries the implication that scholarship is to be subordinated to politics. Scholars in other countries have given an excellent lead. It would be a sad reflection if British scholars were to lag behind.

Yours etc,
MARTIN BIDDLE,
JOHN COLS,
RAY INSKIP,
CHARLES THOMAS,
As from: Christ Church,
Oxford,
January 13.

Guns at Heathrow

From Mr Walter Houser

Sir, I refer to the letter from Philip Charles (January 15) and whilst I share his concern that it should be necessary for there to be armed police at the airport, that it is necessary appears to be beyond question if Heathrow is not to become a prime target for terrorists.

The Italians (dare I say for once?) seem to have got it right. From the moment that the first terrorist until all of them were "neutralised" a period of twenty seconds elapsed. Three innocent people were killed by the terrorists.

No such precautions existed at Vienna. Many more than three people were killed before the terrorists could be overcome. It is simply not practicable for a

police man, armed only with a handgun, to go up against a terrorist armed with automatic weapons and grenades. What do we expect of the police?

By the time the policeman had formed the intention to draw and use his weapon and had done so the twenty-second period would undoubtedly have passed and how many innocent people would then have been killed?

I acknowledge that to date the police do not have a particularly good record with firearms. That is because in the past they have so rarely had to use them. Unfortunately this seems to have changed and no doubt, sadly, the police will become more proficient.

Yours faithfully,
WALTER HOUSER,
Philip Ross and Co, Solicitors,
77 Wimpole Street, W1,
January 15.

Which chestnut?

From Professor J. H. Turnbull

Sir, With reference to the letter of Lawrence D. Hills (January 3), it is significant that the bark of the horse chestnut (*Aesculus hippocastanum*) contains the substance aesculin. This fluorescent crystalline compound belongs to the chemical family of lactones, noted for their activity against parasites and other living organisms. Aesculin is not associated with the sweet chestnut.

Yours faithfully,
J. H. TURNBULL,
Royal Military College of Science,
Salisbury, Wiltshire.

Born to blush unseen

From Mrs Doris Nicholls

Sir, I hasten to assure the Rev John Tiechurst (January 3) that I have known a Kerenhappuch. She was my great-aunt.

I remember her as a formidable old lady who, until her death in the 1920s, continued to dress in Edwardian style. She customarily wore jet beads. They were very uncomfortable. I know, because my mother passed them on to me, but I have never been able to wear them.

Great-aunt's fame in our family centred on her Christian name, of which she was fiercely proud. (It is, of course, an Old Testament name; that of Job's youngest daughter. We pronounced it with the middle "h" silent.)

The old lady promised my mother that if my younger sister was named Kerenhappuch, then the child would be left a legacy. Mother compromised. There are some things you cannot do to a child, even for money. My little sister was named Keren. She did not inherit.

Yours faithfully,
DORIS NICHOLLS,
1 Jennifer House,
Reedworth Street, SE11,
January 4.

Recovered sounds

From Lady Clucas

Sir, While the moaning of the wind in telephone wires may vanish, I believe there is one sound which has reappeared.

The clatter of tramping feet on Guildford's cobbled High Street must have been heard by our firebricks. Thanks to the banning of vehicles, we can hear it again. The noise is surprisingly loud and, I think, delightful. I wonder if there are any other examples of recovered sounds.

Yours faithfully,
BARBARA CLUCAS,
Carriad Knoll Road,
Godalming, Surrey.

Environment protection

From Mr Walter Bor

Sir, I read with great interest William Rodgers's letter to you (January 10) in which he advocates the creation of a new Department of Environmental Protection, leaving the present DoE with responsibilities mainly for housing and local government, like the Ministry of Housing and Local Government which preceded the DoE, minus its planning responsibilities.

The intention behind these proposals, which is to strengthen environmental control and make it more comprehensive, is to be welcomed. However, if this new department is to discharge its responsibilities effectively with regard to planning, conservation, pollution control, leisure and recreation, as Mr Rodgers advocates, it will have to have substantial new powers over other Government departments.

Several such departments, like transport, agriculture, energy, DTI, DHSS and defence, are at times involved in or closely associated with substantial developments which can have major environmen-

Need for research on tropical trees

From Dr Hereward Corley

Sir, In his article of January 3 Tony Paterson drew attention to the alarming rate at which tropical forests are disappearing and to the part played by the timber industry in this destruction.

Mr Paterson also suggested that the forest should not be cleared for agriculture; but people have to be fed and in some countries the only available land is under forest.

A much more important point is that after clearing, the wrong crops are often planted; annual crops have many disadvantages in the tropics compared with perennials. The comment that only 2 per cent of the soils of Amazonia and of Indonesian Borneo are permanently cultivable may be true, if annual crops are grown, but at least a third of these areas are suitable for tree crops.

Frequent cultivation and exposure of fragile tropical soils results in heavy erosion and rapid loss of fertility by leaching, but under tree crops cultivation is infrequent, a layer of leaf litter protects the soil, and a leguminous cover crop can be planted to build up soil nitrogen.

The increase in atmospheric carbon-dioxide level which follows forest clearing is minimized because a large mass of organic matter is re-established as the trees develop. In addition to these ecological advantages, tropical tree crops can give yields up to five times greater than those of annual crops. The farmer's income is higher, and for every hectare planted with a tree crop instead of an annual, four hectares of forest may be saved.

The World Bank, to its credit, does finance tree-crop schemes in the tropics. The products of the major tree crops, such as rubber, coffee, palm oil and cocoa, are not an adequate basis for a healthy diet, but there is nothing wrong with growing coconuts, selling the product, and using the cash to buy surplus grain from Europe.

Research to develop a wider range of tropical tree crops is urgently needed though, and rather than setting up environmental monitoring departments, I suggest that the World Bank and the international aid agencies should be funding such research.

Yours faithfully,
HERWARD CORLEY,
Highlands,
New Road,
Great Barford, Bedford,
January 7.

Industrial reject

From Mr A. McR. Collier

Sir, The letter from Mr R. E. Crum (December 27) about student grants struck a resonant chord in this household.

Our son, who is in his second year at Plymouth Polytechnic, reading business studies, has to find an industrial placement for his third year. He started in September, 1985, and to date has written to some 75 firms, both national and local. From these he has had 54 refusals, even to see him (the reason generally being that the firm does not run such a scheme, occasionally a company might be tied to a particular university or polytechnic, but in one case trained students only from their parent corporation in Germany).

Twelve firms have not even acknowledged his letter. Of the remaining nine, four (all in service industries) have offered him an interview and five have said that they may possibly be able to consider his application in 1986.

It would seem that in this industry year of 1986 the majority of firms in the UK are as far away as they have ever been from understanding the needs of their managers of the future; two firms wrote that although they had no student training schemes they would welcome my son as an applicant once he had graduated.

As a schoolmaster with responsibility for recommending pupils to go into industry I have found, as has my son, this first direct experience of industry's unwillingness to train the young (in fields other than engineering) a particularly dispiriting affair on a personal level and a worrying one nationally.

It is no wonder that many predict an inevitable slide into Fourth World status for this country and that Sir Terence Beckett (report, December 31) finds it extraordinary that we should need such an event as Industry Year.

Yours faithfully,
ANTHONY COLLIEU,
Soleil d'Or,
Bradfield,
Berkshire,
January 1.

ON THIS DAY

JANUARY 17 1886

Not for the first time The Times out-distanced its competitors when it announced that Russia had accepted Austrian proposals for peace in the Crimean war. In fact the news was published before the Government received it. The paper had vigorously fought for medical staff and supplies in the war zone and the second extract reports an unfamiliar aspect of the efforts of the doctors and nurses who were sent out.

SECOND EDITION.

THE TIMES OFFICE, Thursday, 10 a.m.

ACCEPTANCE OF THE PROPOSITIONS OF THE ALLIES BY RUSSIA.

(BY SUBMARINE AND BRITISH TELEGRAPH)
We have received the following telegraphic despatch from our Vienna correspondent:—
"VIENNA, WEDNESDAY, 10 P.M.
"Russia has unconditionally accepted the propositions of the allies.
"This is authentic."

THE WAR IN ASIA.

In the spring of 1855, when the attention of the public was engrossed by the sufferings of our brave soldiers in the Crimea, and when all thinking men were eagerly devising expedients for the prevention of such sufferings for the future, a better system of medical and surgical relief for the sick or wounded stood first among the reforms that seemed imperative. At this conjuncture, General Cananvalet waited upon the Duke of Newcastle, and described to him in graphic language, but without the possibility of exaggeration, the miserable state of the invalids of the Turkish army.

The Duke listened, approved, consented. A few words pledged the hardy-hearted people of England to an expenditure of about 40,000l. In order that all things might be done in conformity with official routine, a gentleman already busy in the medical service of his nation, Lord Lubbock, Company received the sounding title of "Inspector of Hospitals in Turkey," and was commissioned to form a staff. He engaged about 40 persons to act in various capacities - as surgeons, dressers, dispensers, or interpreters - and departed with his subordinates for the Crimea.

In the month of May the inspector set his deputy with a portfolio of the staff and of the stores to Varna, with orders to organize a hospital there. The deputy-inspector, Mr. Farquhar, was indiffered by the habits and notions of military life. When a sick patient of meo came into the harbour, he claimed them, seized them, put aside the Turkish bakems, carried the invalids to his hospital, and treated them. Bit by bit, little by little, by demanding, insisting, threatening, he wrung necessities for his patients from the hands of reluctant pashas; conquered the immense passive resistance that was opposed to all his wishes; and was enabled to demonstrate, by the number of his cures, the superiority of the medical science of the West.

In the meanwhile, at Eupatoria, the inspector acted in a different system. Four hospitals were immediately given to him, and he declared that when patients were brought to him under proper official authority, and when everything that could be wanted in a hospital was provided, he would allow the surgeons to do their duty in the wards. He would be dignified and respected. If he did not get all his requirements he would write to Omar Pasha. He would call upon Hercules; but he was an inspector, and God forbid that he should put his own shoulder to the wheel. So there were no patients; and after a short time the Inspector of Hospitals in Turkey, first Eupatoria, then Balaklava, then Constantinople. When his officers least heard of him he was taking his ease at his club in London. The members of the staff, either at Eupatoria or with the Turkish army in the field, have dragged on their existence in hopeless illness, or have perished miserably of fever or cholera; and when the survivors think of their wasted time and damaged professional prospects, they have the consolation of remembering that their chief, at least, will be unscathed by these evils.

We have not space in which to recount the various indignities to which our countrymen have been subjected by the Turks; to describe how their services have been contemptuously rejected - their utility denied - their position ignored. Suffice it that they have often been abused of their relations, and have had to battle for the means of sustaining life. Our object is to point out that there can be no justification or excuse for the maintenance of the staff after expiration of the year for which its members were engaged, and to demand from the Government that there shall be no further waste of money and of lives in a useless and thankless enterprise. The Turks do not wish for educated surgeons, and are too besotted in ignorance to know their value. They desire only that the sick and wounded may die speedily, may go to the seventh heaven of the Mahomedan paradise, and may be out of the way of the survivors.

Music while you wait

From Mr Stephen Allen

Sir, In your columns today (January 14) Mr Welchman referred to his uncertainty as to the appropriate choice of piped music to telephone callers.

A local (dare I say rival) firm of snickers' system treats its callers to the theme from *The Sting*. Who I asked if this had any unsettling effect on their clients, I was assured that the correct title was in fact *The Entertainer*. Is this any more appropriate?

Personally, I favour "Who Wants to be a Millionaire," but I wonder whether it would be appreciated by my clients.

Yours faithfully,
STEPHEN ALLEN,
Kilroy & Co,
Solicitors, 1st Floor,
16 High Street,
Scigley,
Dudley, West Midlands.

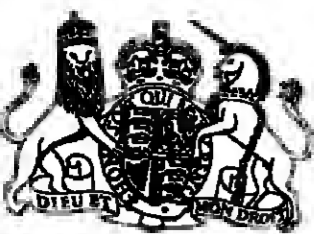
Historical perspective

From the Principal of Wakefield District College

Sir, Ian Bradley (feature, January 11) is correct to warn us of the dangers of dismissing the lessons of history.

Put simply, history and hindsight cut men down to size; futurology and imagination do not; therefore we need a balance of both.

Yours faithfully,
K. W. RUDDMAN, Principal,
Wakefield District College,
Wakefield Centre,
Margaret Street,
Wakefield, West Yorkshire.



COURT AND SOCIAL

COURT CIRCULAR

SANDRINGHAM
January 16: The Duke of Edinburgh, President of the Royal Society of Arts, this morning launched Industry Year 1986 at the Royal Society of Arts, John Adam Street, WC2.

Army appointments

Major-General C. T. Shortis to be General Officer Commanding North West District in March, in succession to Major-General P. M. Davies.

Engineer honoured

Mr Frank Newby, senior partner of F. J. Samuely and Partners consulting engineers, received the Institution of Structural Engineers gold medal for 1985 at a dinner at the Hilton hotel, London last night.

Latest appointments

Mr John Ness to be British High Commissioner to the Solomon Islands, in succession to Mr G. N. Mansfield, who will be retiring from the Diplomatic Service.

Birthdays today

Mr Muhammad Ali, 44; Sir Michael Clapham, 74; Mr Douglas Cleverdon, 83; Mr Martin Cooper, 76; Mr Justice Goff, 88; Sir John Goff, 88; Sir Keith Jackson, MP, 68; Mr Geoffrey Patten, MP, 50; Mr Cecil Ramage, 91; Professor W. B. Robertson, 63; Miss Moira Shearer, 60; Professor Sir David Sills, 78; Mr Clyde Walton, 60; Miss Gillian Weir, 45; Lord Wheatley, 78.

Science report

Photographs indicate ice on Mars

The possibility of life, even in primitive form, existing on Mars depends on the presence of water. Photographs taken by the American Viking space probe provide strong evidence that water exists as ice on the Martian surface.

Pope urges cultures and churches to unite to curb atheism in Europe

By Clifford Longley, Religious Affairs Correspondent
The bishops of Europe are sure to respond generously to the Pope's appeal, the cardinal added. The spread of atheism, and efforts over recent centuries to eradicate religious belief, was "a phenomenon of such vast proportions" that it can only be faced in a co-ordinated "common plan of action" across Europe, the Pope said.

Marriages

Dr F. W. W. Dilke and Miss D. M. Adie
The marriage took place on December 21, in London, between Dr Fisher Dilke, only son of Mr and Mrs C. W. Dilke, of Valehouse Farm, Witherslack, Cumbria, and Miss D. M. Adie, eldest daughter of Dr R. J. Adie and the late Mrs Aileen Adie, of Cambridge.

Latest wills

Mr William Eardley Wright, of Willoughbridge, Staffordshire, farmer, left estate valued at £1,418,929 net. He left his estate mostly to relatives.



Uncovering part of the Roman road at Lendenhall Court in the City of London (Photograph: Bill Warhurst)

City's Roman forum goes on view

Excavations in Lendenhall Court in the City of London have uncovered part of the forum of Roman Londinium, and a viewing gallery has been put up to open the dig to public view (writes Norman Hammond, Archaeology Correspondent).

OBITUARY PETER WATERMAN Former European welterweight boxing champion

Peter Waterman, the former British and European welterweight boxing champion, died suddenly yesterday at the age of 51. Waterman, an intelligent ring craftsman as well as being a good puncher, was rated one of the brightest British boxing prospects of the 1950s.

Subdued sale of Old Masters

By Geraldine Norman, Sale Room Correspondent
Last autumn's buoyant prices for Old Master paintings were not repeated in Christie's new year sale in New York on Wednesday where 76 out of the 175 lots on offer were left unsold.

SIR CHARLES HARRIS

Sir Charles Harris, KBE, died in hospital on January 14 after a short illness. He was 84. Between 1919 and 1961 he was private secretary to successive Chief Whips, and will be remembered for his contribution to British public life as a servant of governments of widely different political complexions.

MR RONALD BARTON

In June 1940, as the German army approached Bordeaux, he was obliged to leave on the last ship evacuating British people. He served in the British army as a liaison officer with the Free French forces in the Middle East and Italy. His Irish origins protected the chateau and its wines from the occupying German soldiers.

PROF ALEXANDER D'ENTREVES

Mr George Morton writes: As I was the English officer mentioned in your splendid obituary of Professor Alexander d'Entrevès, his actual words to me were: "You're, you by chance, at Oxford, or Cambridge?" When I said I was at Cambridge he replied: "Oh, alas, I was at the other place."

SIR JOHN ANDREWS

Sir John Andrews, KBE, who died on January 12 at the age of 82 was Deputy Prime Minister of Northern Ireland from 1970 to 1972. He was a Senator from 1964 to 1972 and Minister and Leader in the Senate for the same period.

The Hon P. J. Plyedell-Bouverie and Miss J. V. Gilmore
The engagement is announced between Peter, son of the Earl of Radnor and Lady Cox, and Jane, daughter of Sir Ian and Lady Caroline Gilmore.

Mr M. D. Hodgson and Miss P. M. Snafoot
The engagement is announced between Martin, younger son of Major G. D. Hodgson, MC, TD, of Newport, Essex, and Mrs M. G. Machin, of Chilworth, Hampshire, and Paris, only daughter of Mr A. F. Snafoot, of Glenageary, Perthshire, and Miss M. C. Snafoot, of Lassvade, Mid Lothian.

Mr A. N. Laing and Miss S. A. Hopkins
The engagement is announced between Marcus, youngest son of Dr and Mrs Denis Laing, of Linsfield, Surrey, and Sarah, younger daughter of Mr and Mrs M. A. Hopkins, of Newport, Gloucestershire.

Vertical text on the right edge of the page, including "Kiss of the Woman", "The Sun", "Re-Anima", "Death W...", "AVAST, ETC HIGH DECORA", "By Fern", "B VAST, ETC HIGH DECORA".

THE ARTS

Cinema
Moving originality and subtle charm

Kiss of the Spider Woman (15)
Lamière

The Sure Thing (15)
Cannon Haymarket, Tottenham Court Road

Re-Animator (18)
Screen-on-the-Green

Death Wish 3 (18)
Prince Charles, Cannon Oxford Street, Haymarket

Geographically speaking, *Kiss of the Spider Woman* is the work of casaways. The film was shot in Brazil, in English; the story is set in an unspecified Latin-American police state, and the long prologue of production credits indicates the many sources from which the budget was raised. It is based on a successful 1978 novel by Manuel Puig, an Argentinian who has for years chosen self-exile in Brazil. The director, Hector Eduardo Babenco, is also Argentinian, originally of Eastern European Jewish extraction. The leading players, William Hurt and Raul Julia, are New York stage actors who from time to time appear with distinction on screen. The writer, Leonard Schrader (*Taxi Driver* and *The Yakuza*), is from Hollywood. Puig's novel is largely a dialogue, without description. Babenco visualizes the setting, beginning his film by teasing the imagination. A beam of sunlight through a window illuminates a painting on a rough wall. The camera pans around a strange room which might be the apartment of some flamboyant, magpie bag-lady: bits of bright materials and garments are hung on pegged on lines, a makeshift dressing-table is covered in pots and pomades. Meanwhile a soft, male voice mesmerically intones a tale of erotic melodrama. At the moment in this narrative where the

heroine dips her dainty feet into her perfumed bath, we see a pair of feet, dainty enough, but undoubtedly masculine, beneath hairy legs and a florid dressing wrap.

Then it is revealed: the place, despite the bizarre home comforts, is a prison cell, occupied by two men. The owner of the feet and the wrap is Luis Molina (William Hurt), an indulgently feminine homosexual, imprisoned as a sexual offender. Valentín Arregui (Raul Julia) is a political prisoner, an ascetically dedicated revolutionary, puritanically macho and exasperated by human frailty - especially of Molina's kind.

The tale which Molina spins for their mutual amusement is the story of a film which he may have once seen or may simply be inventing (in Puig's original it is Val Lewton's 1940 *People*), and which we see intermittently on screen, in period black and white: a farago about love and betrayal in Nazi-occupied France. Valentín is hooked, but unwillingly, protesting at the political content and disturbing sexual excitements.

The men's real-life experiences in a way reflect Molina's foolish "film". Even while the vicious prison authorities are attempting to use him to spy on Valentín, Molina has fallen in love with his testy companion; and Valentín comes to recognize Molina's resilience and goodness, and to understand that his own rigid ideal of what makes a man is not exclusive. Though the end is tragic, each man has acquired some reward of human wisdom, greater understanding of what constitutes manhood, loyalty and love.

Schrader's script would have benefited from some editing, particularly around the static middle section of the film, yet no scene in the often richly comic dialogue is without its fascination. This is in large degree due to the actors. William Hurt's performance, which won Best Actor prize at the Cannes Festival, is without fault. Nothing would be easier than to overplay the extravagantly theatrical queen, yet he never does. Within the posing and the exaggerated gestures there is a wonderful precision of psychological



Fantasy and fact: Sonia Braga, in the tale-within-a-tale, and William Hurt in *Kiss of the Spider Woman*

observation and exact detail: note the moment of comic panic when, having duped the prison warden into supplying a tuck box, he fears that he might forget some vital item (camomile tea? preserved peaches?) from his shopping list.

Raul Julia admirably complements this more expansive performance. Much of the time Babenco emphasizes Valentín's resilience by having him play in shadow, or the concealment of a heavy growth of beard. With its mix of international talents perfectly integrated, Babenco's realization of Puig's *Kiss of the Spider Woman* offers one of the most original and likeable dark-horse films of the past year.

Rob Reiner's *The Sure Thing* begins ominously like yet another teen sex comedy, as two school-friends debate the sexual promise of their coming year as college freshmen. From the start though the script by Steven L. Bloom and Jonathan Roberts hints at more wit than is usual in the genre; and things start in

look up a lot with the encounter of Gih (John Cusack), junk-food addict and reluctant virgin, with Alison (Daphne Zuniga), the frigid, priggy star of the class.

The film quickly turns into an *Eighties It Happened One Night*, with Gih and Alison, hitch-hiking to California for Christmas, as a teenage Gable and Colbert. It is even as chaste as Capra's 1934 film, and a scene where the couple share a motel bed with fixed and fulfilled determination (admittedly stronger on the boy's part than the girl's) to stay pure has a comic, touching, forgotten charm.

Charm is, indeed, the strong point of this surprising film. The young players, who are never off screen, are believable, attractive and very skillful as the theory relationship develops from apparently unresolvable opposition to true love. As with Gable and Colbert, the end of the journey brings mutual appreciation. At their Californian destination Alison finds herself as disillusioned

with her stuffy fiancé as Gih is with the noble *Sure Thing* promised by his old school-chum.

Adapted from a story by H. P. Lovecraft, Stuart Gordon's *Re-Animator* is the style of mortuary horror where heads burst and bowels snake out of corpses to throttle the unwary. It aims for cult status by the excess of its horrific special effects and by the knowing absurdist comedy of the dialogue. The villain is, too, a reasonably novel character, played by Jeffrey Combs as a humourless, opinionated young scientist who pursues his experiments in reviving the dead with scholarly unconcern for the fact that they revive in the form of mindless, murderous monsters.

It all gets pretty disgusting, but there are funny bits like the parody of Bernard Herrmann in the musical score, and the corpse which carries its severed head around in a dish.

However ferocious and violent, there is something pathetically sad about Michael Winner's *Death Wish*

films: these are the wish dreams of the middle-class and middle-aged, faced with the frightening perils of modern urban life. From film to film Charles Bronson continues to play the longed-for hero - a modern Robin Hood, White Knight or Wyatt Earp - who will rally the courage of the little people, unite the good, and rid the city of muggers, burglars and other dark forces.

In *Death Wish 3* Bronson (in his usual character of Kersey) is released from jail to clean up a terrorized locality where the police who behave like Keystone Cops anyway - have failed miserably. This third adventure is not much different from its predecessors except in the capacity of Bronson's armoury and the scale of the holocaust when he takes on the city's combined youth gangs. It is a matter of macabre curiosity that, to find sufficiently devastated locations, Winner filmed not in New York but in Lambeth, London.

David Robinson

Television
Question of age

The world's oldest man is a Japanese who lives on a coral island and has just taken a fancy to the local firewater. He is 120. In Britain there are more than 3,000 centenarians in receipt of a telegram - or telemessage - from the Queen. This is 10 times more than 30 years ago.

Retreating from the fray of child sex abuse, TV Eye (Thames) last night tried to investigate why more of us are ageing better. It was a stumbling, inconclusive programme depending largely on a home-grown questionnaire which had the undertones of a quiz.

Explanations given by 100 centenarians as to why they thought they had lived so long were at variance with medical opinion (which pointed at smoking and drink as negative key factors and also, though it was left mostly unexplored, heredity). "Not having a lot of money and doing a right" was one woman's recipe. "Never deceive anybody" was another's, while talking "to who I like" was the answer of a former suffragette now campaigning to save her local post office. What would she like to do now, asked the reporter John Withington. "I'd like to travel", he replied, an eye no doubt on the Ms Centenarian of the Year title.

Caught in its own net of having to go through the survey's dreary and obvious findings, TV Eye had no time to examine foreign research or the question of diet. All we really learnt was that after eight times as many women over 100 as men, that this gives no pleasure to Manny Shinwell who now "has no sex drive at all", and that Britain's two oldest men and women live in Swansea.

John Evans, at 108 the oldest man, was 73 when he checked out of the mines - the very age that the novelist Angus Wilson has chosen to leave the country. In one of its more superior editions, *Bookmark* (BBC1) took the colourful sage back to his abandoned haunts.

"I'm sure neurotic people do seek for embodiments of what they fear", he said of Mrs Thatcher, the reason for his going. With her philistinism, her emphasis on money, she had taken his mind up with political questions at a time when he wanted to relax. His pilgrimage home so soon, to Dolphin Square and the British Museum (though not to Sudbury), was a fragmentary trip in Ian Hamilton's company, and relied, oddly, on someone else to read out his work. It did elicit one new story, how he had once been blackmailed by a boyfriend - a cockney called Charlie with connections in butchering.

Bookmark also featured an interview with a first-time writer called Simon Burt. While it was good to see Nigel Williams reverting to his native English for this, he did show some insensitivity in trying to pigeon-hole Burt, a gentle, repressed Catholic whose publisher shares, as a gay writer. By far the most successful part of the programme was a piece on the detective writer H. R. F. Keating (directed by one Roland Keating). Cajoling the author to enter the spirit of his own creation, the timid Inspector Gbore, it explored with intelligence and imagination how a writer who has never been in India has been able to capture the land so well. What it missed was a more thorough and valuable look, although did make the trip, at what he had got wrong.

Nicholas Shakespeare

● The 1986 Spoleto Festival USA, in Charleston, South Carolina, from May 23 to June 8, celebrates its tenth anniversary and also the seventy-fifth birthday of its founder and artistic director, Gian Carlo Menotti. His opera *A Saint of Bleeker Street* is among the main events.

● Peter Sallis, most widely familiar as Clegg in the television series *Last of the Summer Wine*, heads the cast of *Pride and Prejudice*, a new adaptation by David Pownall of Jane Austen's novel, which opens at the Old Vic on January 25.

Jeremy Kingston



Determined, almost cussed, individually in the striving *Souls*

Galleries

Helaine Blumenfeld
Whitefriars, Coventry

Despite the depressed state of public sponsorship for the arts at present, new galleries with Arts Council and local corporation backing do happily keep opening. The latest to my knowledge is Whitefriars in Coventry, after a trial run with local student work it has as its official opening exhibition a show of recent work by the American-born sculptor Helaine Blumenfeld, which runs until Sunday.

The building, which is going to be used as a regular sculpture gallery, is both beautiful and bizarre. It consists of a range of fourteenth-century cloister, built in the local pinkish sandstone, with above it an impressive timber-roofed hall originally the white friars' dormitory but bearing signs, in its Elizabethan windows, of a Tudor conversion to domestic purposes. The oddity is that this little medieval enclave survives under the wing, as it were, of a giant modern bypass road which cuts it off from the Cathedral and the rest of historic Coventry.

Still, somehow the two worlds co-exist, and that they do so is significant of the wide usefulness of the exhibition spaces inside the Blumenfeld sculptures, which are very much of this decade, even specifically of this decade, look completely at home in cloister and hall, the pink stone of the walls setting off admirably the plaster and fibre-glass whites, the extraordinarily rich and varied patinas of those in bronze (so deep and glowing, some of them, that they deceive the eye into supposing the sculptures to be made out of some serpentine stone).

Blumenfeld's latest work shows a significant advance on her last London show at Leinster. Fine Art three years ago. For one thing, she is the kind of sculptor who thinks and works naturally on a large scale, and the hints of preciosity in some of the table-sized works are here nowhere in evidence. As before, many of the works are assemblages of several pieces which can (and according to the artist should) be varied in disposition as far as circumstances allow.

Indeed, *Dance Project: Reclining Woman* was meant from

the beginning to be assembled by dancers in the course of a dance-work by Jacques D'Amboise, and so has to be made of something light and manoeuvrable - fibre-glass, in the event - though a commission is apparently in the offing for Blumenfeld to carve it in white marble for permanent installation. This work is characteristic of Blumenfeld in another way: though at first glance it appears to be abstract, the more one looks at it the more one can see the clear figurative references. The title helps too, but with others one needs no title to sense the couplings possible, the animal tensions which activate the works from within.

In some of the most recent pieces one can even see, for the first time in Blumenfeld's work, some possible like-mindedness with her first master, Zadkine; in particular the upwardly striving, larval eruption of *Souls* has something in common with Zadkine's later work. But the predominant impression is one of determined, almost cussed, individuality. It is well worth going to Coventry to savour.

John Russell Taylor

Concerts

Brazen bravado

BBCSO/Atherton
Barbican/Radio 3

The monstrous trumpet fanfare of the finale of Rachmaninov's First Symphony heralded on Wednesday David Atherton's new appointment as principal guest conductor of the BBCSO. This symphony, and Tchaikovsky's Second Piano Concerto, were a curious yet canny choice with which to initiate a new relationship. They made for a programme which will surely have startled a wide audience into wondering just what we may now expect from Mr Atherton this side of the Atlantic.

Rather like Prokofiev with his legendary pink and blue notebooks of official and unofficial ideas, Tchaikovsky, too distinguished unashamedly between first and second category works. The Second Piano Concerto was written, as he admitted, from the motivation of sheer boredom. So Atherton and John Lill made up their minds to hazzen out the 30 minutes of the first movement, with its head-thumping bravado, as Lill's fingers hammered out one gear-change after another, and flute and piano figurants tried to disguise the lurches as best as they predictably could.

And then, as if to disown its beginning, the scene appears to change to a violin concerto, before turning into a piano trio,

in a slow movement which Rodney Friend and Ross Popple clearly enjoyed every bit as much as Mr Lill. There were times, in this, the full original version, when the aggrandized pump-room ambience wore a little thin, and one began to wonder if the existing pen of Tchaikovsky's friend Alexander Ziloti had not acted wisely after all.

But Atherton certainly knew how to get first-rate mileage out of second-rate material. In the Rachmaninov, though, he turoed the tables. Refusing to concede the still widely promulgated Cinderella theory of the work, he made a powerful case for its dramatic surges and its compositional originality. He lashed his players into submission in the first movement's extraordinary alarm of fugal writing and laser-like tuttis, and exploited every bend and breath of Rachmaninov's long, self-generating string writing.

Having sharpened his orchestra's responses to a razor-edge, he was free to play up what he clearly saw as the schizoid character of the rest of the work. By concentrating on rhythmic mirror-images, by setting solos in hard, bright relief, and working up from a firm bass foundation when the aggrandized pompousness of the strings was able to control the whirling invention of the lullaby-scherzo no less superbly than the finale's convulsive unase.

Hilary Finch

Capricorn
Bloomsbury Theatre

Audiences in five centres nationwide have plenty to look forward to in Capricorn's Contemporary Music Network programme, which the group presented in London on Wednesday. One might shed a brief tear for the fact that the least effective piece is also the only British one; but even that work has its two companions are surely masterpieces.

Alfred Schnittke's Piano Quintet of 1976 can be judged thus on the strength of its emotional power, which quite justifies this composer's position as Shostakovich's natural successor. Indeed there are blatant linguistic similarities between the two men, not only in the sparseness and diatonic nature of much of their most effective writing but in the way both readily exploit ironic banality - here, for example, in the distorted salon waltz that characterizes the second movement. But the influences upon Schnittke range wide. In the same movement the wailing and shrieking clusters recall moments from Penderecki (*Threnody*) or Lutoslawski (*Funeral Music*), while the microtonal wanderings of the third movement, an impassioned lament, tempt one to suppose a familiarity with Ives. The overall effect, however, is far from piecemeal. The com-

poser's grief and self-questioning (triggered, he claims, by the death of his mother, although it is tempting to assume socio-political connections) are thoroughly explored before being laid gently to rest in the final D flat major passacaglia.

Just as intense, though in a markedly different manner, is Ligen's Horn Trio (1982), in which everything possible and impossible seems to happen, often all at once. There is the frenetic, complex jazziness of the second movement, for example, and the gritty displacements of the even more hectic succeeding "Ala Marcia", while in the finale, another passacaglia, Ligeti creates an almost Mahlerian nightmare as the notes of the piano become lower and louder.

Susan Williams (horn), Elizabeth Layton (violin) and Julian Jacobson (piano) were splendid in this work, as Layton and Jacobson had been with their string-playing colleagues in the Schnittke. David Blake's Clarinet Quintet (1980) probably required just as much effort to perform, and the clarinetist Anthony Lamb certainly gave it with confident, well-controlled phrasing and timbre. It was a work, too, that proved predominantly lyrical and easy on the ear, despite its variety of moods and manners. In this context, however, it seemed slightly tame, as if Blake's art was concealing his art just a little too cleverly.

Stephen Pettitt

Theatre

Travesties
Playhouse, Oxford

Approaching its twelfth birthday, Tom Stoppard's sly, brittle, fitfully brilliant play seems to be showing its age. As an exercise in convoluted, donnish wit, and on the level of intellectual pinball, it remains absorbing enough, and the more effective passages of dialogue continue to refresh the parts of one's ears that other plays cannot reach, but its theatrical delight-of-hand - efforts for the sake of effects - reminds one all too well of the era of wilful cultural confusion in which it was written. As with many of Mr Stoppard's works, it paradoxically has more appeal on the page than on the stage.

The hook to Richard Williams' trick, sometimes slick production is that it follows on from last week's *Importance of Being Earnest*, which *Travesties* cannibalizes and mildly subverts - indeed, what sense *Travesties* does make would slip through the fingers if the older play were not reasonably fresh in the mind.

To recap briefly, the present work embroiders the historical

fact that in Zurich during the First World War James Joyce directed a production of *Earnest* which resulted in a ludicrous row with an English diplomat named Henry Carr concerning the ownership of a pair of trousers. The surreal real figures roped in to play various roles are Lenin, his wife Nadia and Tristan Tzara, the Daddy of Dada - which, as the script somewhat repetitiously points out, is Russian for "Yes, yes".

Mary Flood's *faux-marbré* set of last week has been draped with dust-sheets, and the same players take on their parallel roles. Christine Kavanagh's Gwendolen and Natalie Ogle's Cecily (the "e" pronounced as written this time around) work extremely well together, particularly in the "Oh Mrs Carr" duet, although Miss Ogle seems more muted than she should be and has not a perfect grasp of her lines. Chris Hunter plays Henry Carr with dapper precision, but the most successful performance is David Mallinson's Joyce: the saint of formalism seen in flamboyant mood, hat cane, extravagant gestures and all.

Martin Cropper

A Day Down a Goldmine
ICA

There is a little original H. G. Wells in all of us that must warm to a show where the finger of God is lowered from the flies on a fishing-line and pulled up again with a small sheep in crumpled kapok attached to the hook. The philosophic point expressed may be neither original nor precise but the joke is cheeky and good cheek is always welcome.

A prizewinner at last year's Edinburgh Festival, George Wylie's show is a short hop through the history of religion, finance and lies. "Be suspicious" is his refrain, spoken, intoned and sung at suitable points in the story by Bill Paterson, our guide, and by Mr Wylie himself, acting as stage-manager, ukulele-player and maker of acrobatic sculpture. Tony Gorman expresses the same refrain on alto sax and flute.

Festival committees can throw out prizes to whom they like, and one must remember how terrible the competition mostly is. A show that is fundamentally serious makes clever use of props and is fairly unusual in theme deserves to win something. Whether that Midlothian glory should be followed by a journey into London's harsh lights is more doubtful.

It is ideal festival fare - audiences will appreciate it on the university circuit - but the more sophisticated will find it short of best.

Bill Paterson has the attentive but unsmiling face one guesses lies beneath the make-up of a circus clown. He starts

his illustrated lecture on a stage carefully cluttered with the bent wires and suggestive shapes of Wylie's moving sculptures.

Nicholas Shakespeare

Greek temple and church letters await their turn to be mocked. A wooden rainbow is there to be pulled in half. Gold bricks lie about. Mr Paterson in wizard's cap wildly chopping rubbish with an axe neatly captures the mad muddle of alchemy.

Other jokes look more like the anxious lecturer's japes to hold attention. Enormous labour must have been devoted to making the sizeable eagle in star-spangled tatters flap on its back just to illustrate the Wall Street Crash.

Jeremy Kingston

"REAGAN BETTER CATCH UP WITH THIS ONE!"

Iain Johnstone - THE TIMES

"A CRACKERJACK THRILLER"

VARIETY

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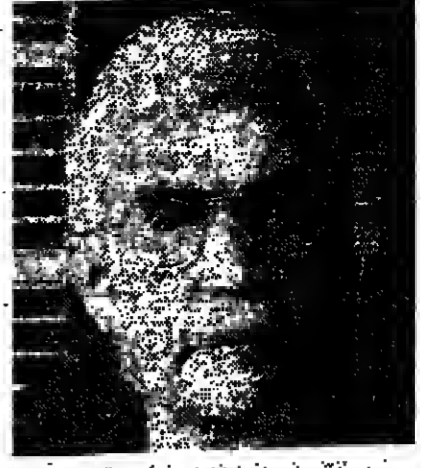
JOHN BASTON

JOHN BASTON

JOHN BASTON



Britain's powerhouse for the nuclear age



Main picture by Harry Kerr



The name Harwell is synonymous with the origins of nuclear power in the UK. Founded 40 years ago, it was the proving ground for the physicists, chemists and engineers who were the first generation of British nuclear scientists, responsible for the exploitation of atomic energy.

It is now one of the largest contract research laboratories in the world, with an income of more than £100 million a year, divided between work paid for by the Government and the nuclear power industry and 1,200 contracts worth £1 million a week for customers in the UK and overseas.

The initial nuclear energy work in Britain had three strands: the first was the Harwell research centre, the second a directorate of atomic energy production to build plants which make fissile material, and third, an armament research department.

By 1954, when activities were growing rapidly on all fronts, the Government created the UK Atomic Energy Authority (UKAEA) to embrace all basic research to underpin nuclear technology. But to the public at large, Harwell was the British atomic energy effort.

It is now on the verge of a fourth activity - a process of becoming a more commercial operation. During its growth, Harwell has contributed to much of the British nuclear family, including Amersham International, the nuclear reactor divisions of the

Central Electricity Generating Board and the South of Scotland Electricity Board, and British Nuclear Fuels.

The fundamental research in nuclear physics also ushered in the era of Big Science, the name describing the new types of study needing large experimental machines, atomic piles and accelerators.

The trend was to spill into academic research generally, and it was helped when parts of Harwell were hived off to create what is now the Rutherford-Appletton laboratory, which co-ordinates university work in particle physics, and the Culham

It is alma mater for 30 professors who worked on nuclear fission

laboratory which researches into fusion.

The establishment is also the alma mater for 30 professors, who have passed on to the emerging generation of nuclear scientists the intricacies of atomic fission.

Distinguished alumni include Brian (now Lord) Flowers, vice-chancellor of the Royal Commission on Environmental Pollution; former Harwell director, Walter (now Lord) Marshall, is chairman of the CEEB; the eminent metallurgist, Sir Alan Cottrell, master of Jesus College, Cambridge and former chief scien-

The Harwell complex, where Britain's nuclear research had its origins. Sir John Cockcroft, top left, the establishment's head, when it was founded 40 years ago, and Dr Lewis Roberts, the present director

tific adviser to the Cabinet; Sir Denys Wilkinson, vice-chancellor of Sussex University and chairman of the Government committee on radioactive waste.

Those who went into industry include Sir Monty Finnieston and Dr Dennis Oliver, technical director at Pilkingtons. There were black sheep there as well - in the 1950s the atom spies Klaus Fuchs and Bruno Pontecorvo.

Harwell came into being on January 1, 1946, with the conversion of a site which for 10 years had been an RAF station. The laboratory was formed as a single mission research establishment providing a scientific foundation to underpin the development of nuclear technology.

The site was chosen to an exacting specification. It had to be not less than 10 miles from a large town, partly so that no large population could be affected by accidental discharges of radioactive gaseous effluent from the chimney of a pilot-sized air-cooled atomic pile, and partly to ensure that work was in clean, undisturbed surroundings.

It had also to be near a large university so ideas would be

exchanged, thereby ensuring that the scientific staff did not become intellectually inbred. Light engineering services had to be at hand, together with good access to London and other big cities.

These requirements had to be coupled with a need for nearby sparsely inhabited country suitable for non-atomic ordnance explosions. A minimum area of 100 acres was

Early indications of potential spin-off into other industrial use

sought, and it needed to have readily available large supplies of electricity and water, suitable soil for heavy load-bearing and a low water-table so that underground tanks could be built for radioactive liquid handling.

Buildings were needed for easy conversion into laboratories, and some houses were required.

It was almost a paradox that an establishment with such clear specifications should have had rather vague terms of reference for the guidance of its first director Professor (later Sir) John Cockcroft. But he organized in

a way now favoured by the leading research centres.

The present director, Dr Lewis Roberts, describes the first arrangement of Harwell as a set of parallel and intellectually powerful institutions. As a role and the work of Harwell evolved, changes were necessary to achieve greater cross-fertilization.

At the outset of the establishment Sir John, who had the Prime Minister's ear, was promised "the utmost measure of freedom in control". All he was asked was "to devise an organization that would ensure vigorous development of atomic energy".

It was through the bond with universities forged by Sir John that the reputation of Harwell as a centre of scientific excellence was established. In the early years, physicists and mathematicians were by far the most numerous discipline - later it was the chemists, metallurgists and engineers who were to be of crucial importance in the practical application of nuclear power.

An obvious source of recruits was from the scientists who had been seconded to the Manhattan project, the production of the first atomic bombs in the United States.

Another was from the universities - Oxford, Cambridge, Birmingham and Liverpool in particular - whose

scientists had worked for the secret wartime agency Tube Alloys, the codename given by the Ministry of Supply for its atomic energy projects.

Harwell also attracted physicists with electronics expertise who had worked on the radar projects. Their research into instruments and solid state materials was among the early indications of the potential spin-off from Harwell into other industrial fields.

But the first achievements have in a way lasted the longest. By July 1948 a research nuclear reactor called Bepo was commissioned and became the workhorse of the nuclear research programme in Britain for 21 years. And a small graphite low-energy, experimental pile, called Gleep, was in operation even earlier - it is still running 39 years later.

Bepo produced the isotopes supplied for medicine and research by Amersham International. But its main work was to underpin the research that gave rise to British reactor technology. Half Harwell's present effort is concerned with the reactor development for the UKAEA, the Government, the generating boards and the nuclear industry. After April 1 a fundamental change takes place. The UKAEA and AERE Harwell will be a trading fund. They are then in business for profit and will be allowed to borrow money for expansion.

Life in the atomic club

The maxim that life begins at 40 has been adopted with optimism by staff at Harwell as they enter a new era from April, when the activities of the internationally famous research centre are conducted on a trading fund basis.

The changes follow new arrangements in the finances of the parent body, the UK Atomic Energy Authority (AEA). But it means that in future all work by Harwell will be on contract for customers. Capital expenditure will be funded from profits on contracts and depreciation charged to customers, and money could be borrowed from the National Loans Fund.

In effect, Harwell will be able to operate like a private company, whose shares are owned by the Treasury. The alterations follow a review of the AEA made last year for the Department of Energy. The conclusions were:

● The AEA should not be

Continued on page 19

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Research Laboratory of the United Kingdom Atomic Energy Authority

Table with 10 columns and 365 rows, listing dates from Jan 1 to Dec 31 and corresponding investment amounts (e.g., £1,000,000).

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FOCUS

The go-ahead style that was started by Sir John

Six directors have guided the Atomic Energy Research Establishment at Harwell through its various vicissitudes. Three of them were faced with especially daunting tasks: Sir John Cockcroft, the architect of the establishment (1946-1959), Walter Marshall (1968-1975), and his successor, the present director, Dr Lewis Roberts. Each one approached the job in a different way.

The university-style of laboratory that Sir John Cockcroft set out to create suited his background. Already well known to the world of science, he had been a member of Rutherford's team at Cambridge and in 1932 he and E. T. S. Walton were the first scientists to split an atom by artificial means - a feat recognised by a Nobel Prize in 1952.

Although Sir John had the job of translating what were sketchy ideas on paper into one of the world's largest research centres, comparable with the big atomic centres in North America, his term was perhaps the most enviable. The morale of the scientific community in

Britain was at a peak, which has not been reached since. The climate was buoyant and Sir John's tenure is recalled as the "yes, go ahead" era, as opposed to the "how much will it cost?" ones to follow.

Anecdotes about him still abound in the small change of conversation among senior scientists at Harwell. He was known as a person who liked a one-paragraph report, to which he could say simply yes or no.

He nurtured the university atmosphere to ensure that an exchange was sustained with academic departments, averting the possibility of Harwell teams becoming isolated from the freedom and dialogue on which creativity in science thrives.

At the same time he forged strong links through liaison groups with government and he kept the ear of prime ministers.

There was competition for the top scientists. But the combination of being at the start of the most ambitious research project conceived in Britain, with the pioneering of a new source of energy, was a strong magnet. Within 18 months of starting work on the

Harwell site, there were 238 scientists on the team, of whom 174 were under the age of 35.

In her official history, *Britain and Atomic Energy, 1945-52*, Professor Margaret Gowing says: "Many first class scientists would not have gone to Harwell but for their confidence in Cockcroft, and he lived up to their expectations."

By 1953 there were more than 800 highly qualified scientists and engineers, and the number more than doubled before Sir John retired. In addition to heralding the arrival of Big Science - depending first on atomic piles and particle accelerators, later on more elaborate reactors and, more recently, on new types of equipment for ion implantation and using laser beams - an equally profound change in the approach to the practice of science was brought by atomic research. It marked the start of interdisciplinary or, as it is now called, interprofessional research.

Scientists and engineers had to work more closely together than had been the practice in



Generating power: Scientist Mike Brahner does a routine check on the upgraded version of the Cockcroft-Walton generator

previous basic research. Theoretical and experimental physicists, chemists of all types and metallurgists found themselves combined in unique multidisciplinary teams, which also included engineers who had to extend their work from practical design to embrace scientific concepts new to them.

This was eventually to stand Harwell in good stead when by the middle of the 1960s, the role of reactor innovation by the establishment was largely over.

But, with the end of reactor innovation, the question of how best to diversify became urgent. That was the nettle grasped by Walter Marshall. He was helped by the 1965 Science and Technology Act, which allowed the nuclear laboratories to do non-nuclear work and to provide a commercial service.

Whereas Sir John was regarded as a man of few words, Walter Marshall, the youngest director of any of the appoint-

ments, was seen as a 24-hour dynamo. Cockcroft's reluctance to put things on paper, resulting sometimes in people believing they had been promised different things, was matched by Mr Marshall's clarity of explanation of what he wanted.

The going was hard. Harwell scientists had no experience of going out to sell their expertise. And when industrialists were anxious to discuss technical



Remote control: Engineer Betty Green tries out advanced technology for handling any type of nuclear fuel

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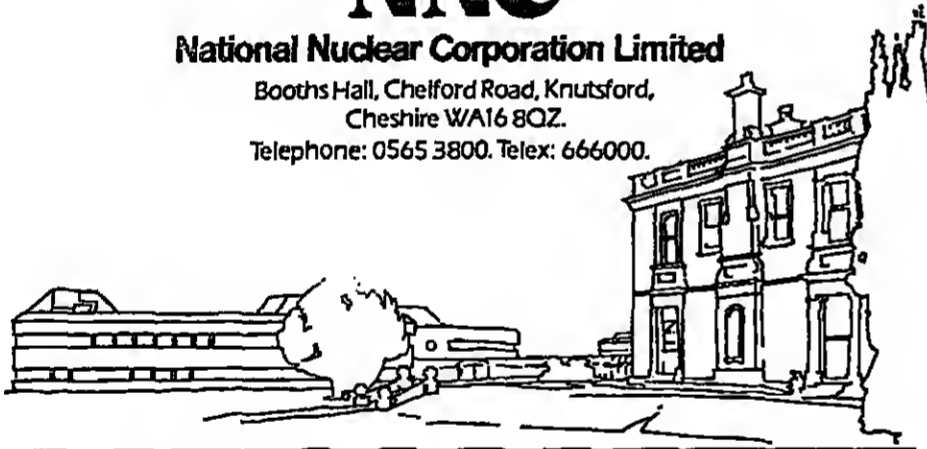
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An insight for sore eyes

A connection between the physiology of the eye and the physics of nuclear research at Harwell may seem unlikely. But there is a link. It is in the form of a scanner developed for Moorfields Eye Hospital in London, for detecting foreign bodies in the eye.

The medical equipment is a special application of a method of non-destructive testing which came from basic research into ultrasonic methods for examining materials.

The results of that research opened the door for scores of industrial uses. But the discovery was only made because of a deliberate policy at Harwell to sustain a significant level of underlying research, which may have no immediate application clearly in view.

A certain preoccupation with the subject reflects the origins of the establishment. It was created in the recognition that a sound scientific base was needed if the possibilities of atomic energy were to be converted into technologies.

The policy paid off handsomely in the nuclear field, and it is yielding increasing rewards in the non-nuclear studies for industrial and commercial customers.

The established way of using ultrasonics in non-destructive testing is to transmit a pulse into a material and to look for a reflected signal, indicating a flaw. There are many circumstances in which this technique will not reveal a defect because it is not possible to achieve the sensitivity needed for clear reflections.

The discoveries that provided a new way of detecting hidden cracks and measuring their size came from research which began 15 years ago. Furthermore, two groups which were working in different fields contributed to the advance.

Rather than detect reflections, one of the teams explored whether diffraction occurred, thereby allowing analysis of how an ultrasound beam was split up or diffracted. By looking at different parts of the signal after it had encountered a blemish, the computer creates what is in effect a fingerprint of the hidden crack.

The other team involved in the innovation was engaged in creating images by computer



A closer look: Scanner developed for eye research

analysis from the sort of patterns of information that methods like ultrasonic equipment generated.

Indeed, before a means was found of producing images of cracks, the visual technique was exploited first in a project to determine the heat loss from industrial buildings.

The basic research began as a classic exercise in the mainstream of Harwell's work for the Atomic Energy Authority's own programme of fast reactor development and for the nuclear industry.

There are at least six objectives which underlying research programme must satisfy:

- It anticipates areas where new problems may arise.
- Increases the scientific understanding of areas of long-term relevance, typically five to 10 years, to the nuclear power programme.
- Develops new skills and techniques, both theoretical and experimental.
- Provides a channel for the exchange of information, techniques and ideas with scientists in the academic field and other basic research groups.
- The results have to be transferred to applied programmes and, where possible,

new applications of the findings identified.

● Provision must be made for a pool of trained people, to enable new problems to be tackled as they arise to industry.

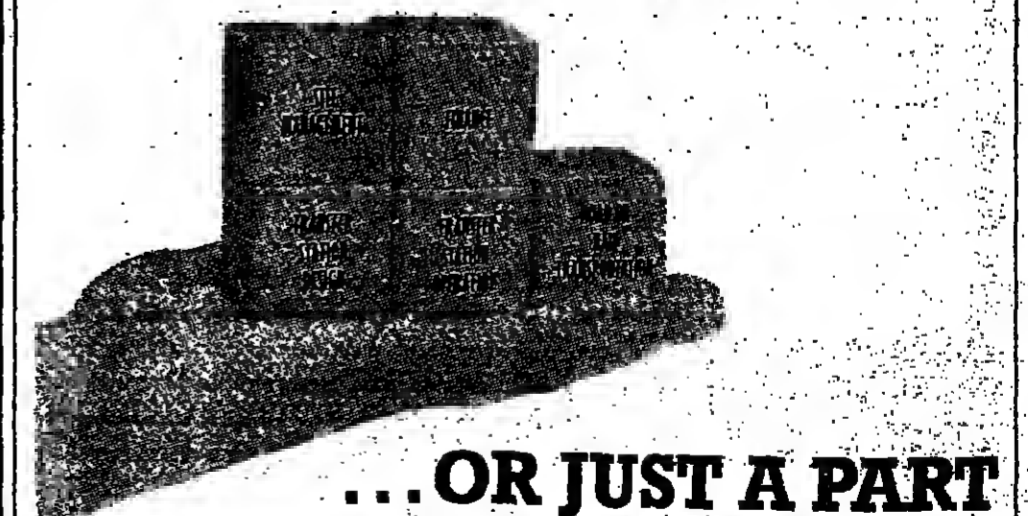
The ultrasonic device, now known as the time-of-flight technique for flaw detection, is a good example of meeting all those criteria.

The trick depends on what happens when beams of ions encounter the atoms of the material on which the beam is focussed. Such beams are produced in one of Harwell's three accelerators.

As the ions hit a material they slow down and stop by atomic collisions, at depths determined by the type of ion beam and the inherent nuclear properties of the material. The interaction is calculated from the formula: EM^2Z^2 (where E=energy, M=mass, Z=atomic number).

By choice of ions and the energy driving the beam, an analysis can be made at specific depths from fractions of a millimetre to a few centimetres. It is done by measuring short-lived activity stimulated during the atomic collisions. The characteristics of the radiation show how much wear has occurred.

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Something to celebrate...

A local band plays at Hinkley Point nuclear power station in Somerset on a sunny day in August - almost 40 years after Harwell research establishment was founded.

Some 11,000 people toured the power station on its open weekend, seeing the vision of scientists transformed into a safe, reliable and economic source of electricity.

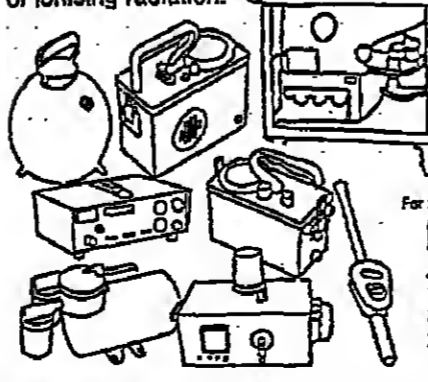
Nuclear power has become a reality, supplying over one-sixth of Britain's electricity - an achievement in which Harwell has played a key role. That's something to celebrate.

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The backbone of nuclear power beyond 2000

The first demonstration to the world of the commercial-scale production of electricity by nuclear power had its 30th anniversary in October. The project, a promise made a decade earlier about the civil potential of atomic energy came when a prototype power station at Calder Hall in Cumbria was connected to the national grid. The ceremony was performed by the Queen.

But the achievement had its origins in the sprawling Atomic Energy Research Establishment at Harwell and, in particular, with the first special-purpose experimental building built there. It was topped by a 200ft-high chimney, marking the centre of the establishment which vented more than six tons of cooling air a minute from the six-megawatt research reactor, Beppo, in 1956.

Over the years, as larger buildings have gone up, the chimney was less of a dominating feature. But for 21 years the reactor remained at the hub of the sort of research that scientists at Harwell refer to today as "nuclear core work".

For Beppo was the forerunner of three generations of gas-cooled reactors that fuel Britain's nuclear electricity supply system: the prototypes, and then the Magnox, and the current programme of advanced gas-cooled reactors (AGRs).

Between them they generated more than 20 per cent of Britain's electricity last year, and the AGRs will be the backbone of the nuclear-gener-



Dr. Stuart Nelson, director of the Nuclear Power Division.

ating capacity beyond the year 2000. In addition to testing the ideas - which gave birth to commercial reactors - and producing isotopes, surplus heat from Beppo supplied energy to nearby buildings in the first nuclear-powered district heating scheme.

Designs for more than 12 power reactors were explored on Beppo. When the machine was retired the "core" research, focused on two others, Pluto and Dido, which had already been working hard. The service they perform is described by Dr. Stuart Nelson, director of the Nuclear Power Division, as unique.

These machines sustain the supply of radioactive isotopes for Amersham International. And the experimental work on materials testing and corrosion, done for overseas as well as British industry, extends the research possible on Beppo.

The uniqueness lies in the intensity of the irradiation to determine the behaviour of fuel rods, materials such as graphite and other components. Whereas Beppo was conceived to show how paper designs for power reactors might be translated into practice, Pluto and Dido were devised specifically to subject materials to extreme conditions.

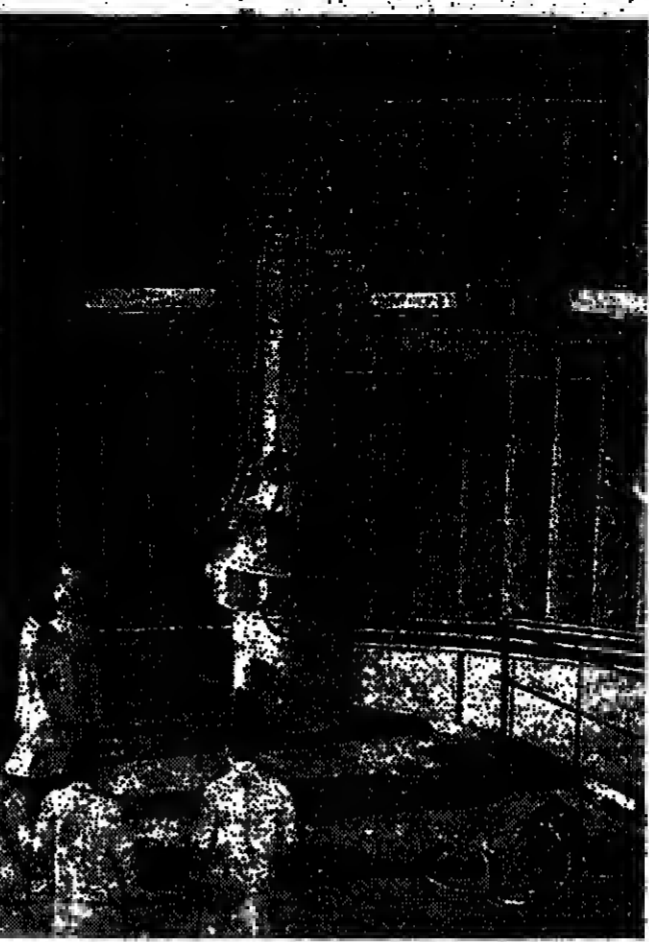
Many of the experiments fall into the category of accelerated life-testing.

Dr. Nelson says that tests at Harwell can show in a few days the state otherwise reached from years of wear and tear in an operational reactor. When the criteria were set 27 years ago for the high-radiation machines, water-moderated designs were chosen, giving 100 times higher radiation levels than materials would experience in thermal power stations.

Experiments with components and materials involve extreme fluctuations of radiation and temperature to mimic abnormal surges. Studies with graphite have preoccupied scientists at Harwell from the outset.

Britain's 16 nuclear electricity workhorses are graphite-moderated. If the graphite could be made to last longer, say another 10 years, the saving would be worth millions a year to the generating boards.

Graphite, gradually oxidizes away in the cooling gases. There are ways of halting the process, but prevention depends on a knowledge at the atomic level of



Dido, one of the early research reactors at Harwell in 1956

the physical chemistry. Intense radiation also causes void swelling. The phenomenon was observed in stainless steel cladding of uranium oxide of fuel in the UK Atomic Energy Authority's prototype fast breeder reactor.

The high irradiation caused the stainless steel to form what Dr Nelson described as tiny bubbles like Aero chocolate. It posed many questions: when

does this start happening, at what rate, what are the long-term effects and could fuel elements leak or become stuck? The metallurgists came up with steels that would swell less than 1 per cent during their life.

Dr Nelson said that as uranium supplies get scarcer and more expensive, the fast reactor will form an increasingly important part of the nuclear core work.

Life in the atomic club

From page 16
privatized in whole or in part.
● The AEA should continue as a unit.
● Substantial government funding should continue.
● There should be further moves to a commercial basis for all operations.

But it is the way that the third and fourth items are paid for which holds the key to change. Dr Lewis Roberts, Harwell's director, says, "We are having to negotiate with the Department of Energy and major customers, such as the Central Electricity Generating Board and British Nuclear Fuels, for a set of research contracts. Fortunately, Harwell has gained considerable experience in the past few years of contract research and over half our work is already funded this way."

The main change comes in arrangements for work paid for by the Department of Energy. That used to come from an annual vote by Parliament of money for the AEA. Now it is to be done through a process of programme letters, or quasi-contracts, defining objectives, costs and targets for every project that the department continues to fund.

The programmes for Harwell covered this way fall into five categories: fast reactor research and development; fusion research and development; thermal reactors and general safety work; share of underlying research and development costs; some funding of other programmes.

Dr Roberts says continuity will be preserved because contracts could run, typically, for three to five years. But work will be organized rigorously to meet contracted demands.

He said experience showed the importance of getting a precise definition agreed between the customer and contractor.

That produces a healthy relationship, under which work goes well. If the relationship is at arm's length, it is possible that the real problem to be tackled does not get identified properly, he suggests.

That is a wisdom based on 15 years of building a contract research business, one which brings in £1 million a week, covering more than 1,000 contracts signed every year.

It was Dr Roberts who was first given the job of studying how contract research organizations operated. The field was dominated by US organizations, and he was shown the ropes by the leaders such as the Battelle research institute.

He says one of the important lessons he learnt was not to expect to find a single blueprint for success. There were many tips and guidelines to follow.

But adjustment of Harwell took time. It had grown into a series of divisions that were immensely powerful in their fields of science and engineering. Cross-fertilization between them was rather *ad hoc*.

Dr Roberts says: "There are strengths and weaknesses in being as big as we are. The benefit of a large research and development team is that you have great strength in depth in many subjects, which you can then express through interdisciplinary work as a variety of business opportunities."

"In today's language that is what we mean by technology transfer."

Dr Roberts explains the policies and achievements of his teams with the assuredness of an academic who is backed with the certainty of scientific fact. There is no hint of pressure salesmanship.

That made his views on the last subject we discussed surprising, because of the fervour with which he expressed them. The topic was waste. He said: "This is a subject where the science and technology is light years ahead of the politics."

"We truly are approaching a feeling of great confidence in the technologies for the immobilization of wastes in durable solid forms to put safely in repositories under the ground."

The subject has been investigated by an interdisciplinary approach, and there is nothing difficult or abstruse about it scientifically. There is no technical reason why it should not be demonstrated adequately outside the laboratory in the field.

"It has been extremely frustrating not to get on properly with field studies to show how it could be done. It is the same with low and intermediate wastes. We have not been able to get on with field studies, but we badly need to do more."

He said Harwell would support the nuclear industry's waste disposal company, Nirex, in making their cases for suitable disposal sites. But he added: "We need the practical geological input."

He was critical of recent suggestions, attributed to a yet to be published Commons committee report, that waste disposal methods in Britain were inadequate. He said: "There is nothing primitive about our technology. We are being prevented from applying it."

Steely resolve under the North Sea

Any do-it-yourself enthusiast who has tiled a bathroom will remember grouting. Old hands at the job will probably testify to the tediousness of the task of using it to make an even filling between the squares.

Recent developments in novel composite materials have eased the frustration. But there are varieties of grouting jobs that raise problems of greater significance than the domestic kind, for instance, on offshore oil rigs.

North Sea oil production platforms are anchored by means of steel piles, which are driven into the sea bed through sleeves that are part of the structure. The spaces between the piles and the surrounding sleeves need to be filled with a cement grout. Understandably, underwater conditions cause severe difficulties in checking that all spaces are filled.

The job of checking the grouting was done by divers in what turned out to be a hazardous operation, as many men lost their lives in the process. That was when a civil engineering contractor to the oil firms, Wimpey Laboratories, approached Harwell.

The company wanted to know if a better method of placing the legs of a platform in the sediment was possible, or if there was a way of devising a

remote-control method for monitoring the grouting. The method that scientists at Harwell perfected was a textbook example of how the laboratory's expertise in the nuclear field was extended to solve a problem for the non-nuclear industry. More important, it created a business opportunity in a new commercial area for the organization.

The grouting problem was explored first in the laboratory in a prohibited test bay, and the proposed solution was then tried out in the North Sea. The effectiveness of the technique was demonstrated during installation of the Thistle A platform.

Partnership with companies in the offshore field

The solution proposed by the Harwell scientists drew on long-established knowledge of radioactive tracing as a monitoring technique. In this case a tracer was introduced to the grouting, and a nuclear density gauge at the top of each pile sleeve indicated when the correct level had been reached. At the same time it measured the grout density. The activity has now been licensed to Wimpey. The initial contract allowed Harwell to explore an area of



Dr. Ron Sowden, director of the Industrial Research Division.

industry which has developed into partnership between them. Radiotracer techniques are being used to determine rock permeabilities and water transit times in oil-reservoir water flooding.

Injection of tracers for various measurements have been done in Middle East oilfields, in addition to work in the North Sea. For internal inspection of a gas well 2,300 metres deep, a special camera was developed to operate at over 150 atmospheres pressure and a temperature above 70 deg. C.

Much of the research and development which followed the success of resolving the grouting problem has been part of a "research club" programme supported by 11 offshore operators, diving inspection companies, certifying authorities and others.

But the development of a partnership between Harwell and the companies in the offshore field is seen by Dr Ron

Sowden, director of the Industrial Research Division, as a good example of how the establishment's collaboration with non-nuclear industry partners should progress.

Dr Sowden studiously avoids the term "spin-off", which was coined in the United States to describe commercial development that had its beginnings in the spending on the space programme. He believes it suggests an activity that is accidental or incidental to some main purpose.

Since industrial contracts will provide up to a third of Harwell's future work, there is nothing incidental about the transfer of technology involved.

Dr Sowden says it is necessary to guard against trying to use a technology on to someone because, "you, as a scientist," are so closely involved with that innovation. Success is more likely to depend on understanding a firm's difficulties and then looking at the prospects for applying a revised version of some discovery to help. That is partnership.

The philosophy that colours Harwell's strategy, in his view, is a determination to achieve the closest possible involvement with industry, rather than merely trying to license ideas developed in relative isolation.

One of the most successful endeavours is a subscription club for over 170 members of the Heat Transfer and Fluid Flow Services (HTFFS). The initial core of data on which the scheme was founded came from nuclear research.

The bank of knowledge as work has expanded immensely as the number of members, many of them overseas, in return for an annual fee, they receive detailed design reports on specific process plant and design handbooks supplemented with computer programs.

Nuclear reactors have raised issues of heat transfer and cooling on a scale beyond that encountered in conventional engineering practice. The expertise gained in this work provides the basis for many industrially fundamental questions in heat flow, on which the economics and reliability of industrial plant hinge. They include boiling, condensation, two-phase flow, turbulent flow, cryogenics, tube vibration and fouling.

Dr Roberts says continuity will be preserved because contracts could run, typically, for three to five years. But work will be organized rigorously to meet contracted demands.

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INDEX-LINKED

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Table of Breweries with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

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Table of Industrials E-K with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials L-R with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials S-Z with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Building and Roads (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Finance and Land (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Chemicals and Plastics (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Cinemas and TV (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Drapery and Stores (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Hotels and Caterers (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials A-D (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

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Table of Industrials L-R (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials S-Z (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Building and Roads (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Finance and Land (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Chemicals and Plastics (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Cinemas and TV (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Drapery and Stores (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Hotels and Caterers (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials A-D (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials E-K (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials L-R (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials S-Z (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Building and Roads (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Finance and Land (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Chemicals and Plastics (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Cinemas and TV (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Drapery and Stores (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Hotels and Caterers (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials A-D (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials E-K (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials L-R (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Industrials S-Z (continued) with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

THE TIMES Portfolio

DAILY DIVIDEND £2,000. Claims required for +51 points. Claimants should ring 0254-53272.

Table of Oil with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Overseas Traders with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Paper, Printing, Advertisers with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Leisure with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Mining with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Property with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Shipping with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Shoes and Leather with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Textiles with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Motors and Aircraft with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Newspapers and Publishers with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

Table of Tobaccos with columns: No., Company, 1985 High, 1985 Low, Company, Price, Change, Dividend, Yield, P/E.

IN BRIEF

Tin council under fire

The private impatience of London Metal Exchange brokers and the International Tin Council boiled over into public anger last night, when one of the authors of a rescue plan for the tin market attacked the aversive tactics of the ITC.

This attack strengthened the growing feeling among bankers and brokers that a breakdown in the tenuous talks with the ITC is imminent - and that a collapse of the tin market is unavoidable. Mr Ralph Kestevenbaum, managing director of Gerald Metals, said: "It is now clear that the ITC's evasive position is being led by France and Germany." He estimated the ITC's likely debts at £500 million. With Mr Peter Graham, senior deputy chairman of Standard Chartered Bank, he has presented a £320 million rescue proposal.

£M3 increases

The sterling M3 measure of money supply rose 0.6 per cent in the December banking month and was 15.1 per cent up on a year earlier. Bank lending rose £2.1 billion. Narrow money, M0, rose 0.3 per cent. PS1.2 plus building society term deposits, a measure favoured by the Bank of England, rose 0.6 per cent and was 13.3 per cent up on December 1984.

Texasco has sold its 1 per cent share in Britain's largest North Sea oil field, the BP Forties field. Clyde Petroleum has bought 0.75 per cent and 0.25 per cent has gone to Berkeley Exploration and Production.

Gestetner profit

Gestetner Holdings, the office equipment group, has increased pretax profits to £11.6 million from £8.2 million for the year to November 2. Sales rose to £387.8 million from £366.7 million. A final dividend of 1p makes 1.5p for the year against 1.32p last time.

IKEA site

IKEA, the Scandinavian furniture retailer, has bought a site at Neasden, north London. It is believed to have paid £8 million.

THF payout up

Trusthouse Forte, the hotel and leisure group, has recommended a final dividend of 4.18p a share, making a total for the year of 5.45p, up from 4.74p.

Broker bought

The Royal Bank of Scotland will announce the purchase of Tilkey & Co, the Liverpool stockbroker, in the next few days.

Imps claims 'unsustainable growth' in bid defence

By Alison Eadie

Imperial, the tobacco, brewing and food group which is fighting off a £1.3 billion bid by Hanson Trust, made a sharp attack on Hanson's growth prospects and past performance in its defence document yesterday.

It claimed that Hanson's growth had been through the acquisition of underperforming companies using highly rated shares, and that the size of Hanson now means this growth could not be sustained. Hanson would have to buy a company worth £10 billion by 1990 to keep up the momentum, Imperial said.

It also asserted that 77 per cent of Hanson's 1985 profits came from declining industries and that the performance of the businesses which have been part of Hanson from 1979 to 1984 had been mostly pedestrian. It singled out Ever Ready for criticism. Since being acquired by Hanson in 1981, Ever Ready

had lost 5 per cent brand share in the short-life battery market and 20 per cent in the total market, Imperial claimed.

A Hanson Trust director, Mr Martin Taylor, said there was nothing in the document that persuaded Hanson its offer was anything other than the right one. Imperial had failed to address the issue of its performance in earnings per share and dividends, which he said was poor relative to Hanson's.

He also dismissed Imperial's attack on Ever Ready, saying the company was the most successful battery manufacturer in Europe. The emphasis should not be on declining industries, Mr Taylor said, but on management performance.

In answer to criticisms that Hanson had cut capital expenditure and reduced sales growth opportunities in those industries, he pointed to the success of Imperial's above king



Geoffrey Kent picking out opportunities.

and Silver Seal - which had both done well. Mr Geoffrey Kent, chairman of Imperial, emphasized that although Imperial was also in declining industries, notably tobacco, it had identified growth opportunities in those industries. He pointed to the success of Imperial's above king

size cigarettes, which lead the sector with 40 per cent market share.

The next stage in the battle depends very much on the Office of Fair Trading, which is expected to reach its decision on whether or not to refer the bid to the Monopolies Commission around January 24, the first closing date for Hanson's offer. It is expected to decide on Imperial's proposed merger with United Biscuits at the same time.

Hanson's shares closed yesterday 1p higher at 200p, valuing its offer for Imperial at 235p a share against Imperial's market price of 258p. United Biscuits shares were up 3p at 239p against an offer price from Imperial inflated by the Hanson bid worth 322½p.

When asked if the terms of the merger with United Biscuits would be renegotiated, Mr Kent said: "We will take events as they occur".

Tempus, page 23

FINANCE AND INDUSTRY

Executive Editor Kenneth Fleet

Hanson is as Hanson does - to the letter

The Britain Letters are definitely collector's items. The latest, instantly dubbed the "Dear John letter", is Lord Hanson's friendly note to Sir John Cuckney, promising the support of Hanson Trust's newly acquired 14.9 per cent of Westland to the Sikorsky-Fiat proposals favoured by the Westland board.

As a gallant gesture by an ardent Thatcher fan, Lord Hanson's move has a certain style. As an attempt to win friends and influence people in the United States, it has some merit. As a straightforward commercial decision, it defies analysis. As a potential, if innocent, source of embarrassment for poor Leon, it is rich in underlines.

When he is allowed to come down to earth again, the Secretary of State has to take business-related decisions which make the future ownership of Westland very small beer. Will he refer to the Monopolies and Mergers Commission GEC's bid for Plessey? Almost certainly yes. Will he refer Imperial's offer for United Biscuits? There are grounds, if so, would he refer Hanson Trust's bid for Imperial where the grounds are thin? Or leave the way clear for a Hanson coup?

Since the days of Lord Cockfield, in the Anderson Strathclyde case, ministers have been rightly chary of overturning the commission's recommendations. The pressures now are more subtly applied at the earlier stage, where Sir Gordon Borrie, the Director General of Fair Trading, decides whether or not to recommend a reference to the minister. The great value of Sir Gordon's mergers panel is that it absorbs political sound waves before orchestrating them into a recommendation that rings sweet and true in ministerial ears.

While a commission report invoked by a reference is not 100 per cent predictable, it is unlikely to recommend a course of action that the Secretary of State and his colleagues would not accept. In the current absence of a firm government policy on monopolies and mergers, all references to the commission of major contested bids are political. They also can look bad.

One of the consequences of a reference is delay, up to six months and more, which is time bought for the victim and time, certainty and management resources lost for the bidder. Delay also may have a damaging effect on the business of one or both companies involved.

A reference for GEC (a member of the European consortium fighting over Westland) would not automatically mean, of course, rejection of its case for taking over Plessey. Far from it. GEC is uniquely placed to initiate the reconstruction of the electronics and telecommunications industry in Britain where you have only to look at the record, and the current mess of Thorn EMI and STC, to see that small is not beautiful.

No British company, not excluding GEC or Plessey, has carved out a significant place in electronics and telecommunications export markets. They owe far greater competition in their home market as British Telecom in particular looks to foreign suppliers and Europe as a whole becomes more open to American and Japanese equipment and systems. Even in defence, foreign competitors are concentrating their resources through mergers - in France, West Germany and the United States.

Corporate raider biding his time

Ivan Boesky is the ace American arbitrageur, a man who virtually invented his most specialist stock market skills. His intervention in a takeover bid is viewed with horror by many bidders, who see Mr Boesky and his disciples as greedy opportunists determined to make them pay a fancy price. He sees himself more as a Robin Hood, fighting to get shareholders a better deal.

He regrets that his talents cannot, yet be put to such effective use in Britain. "I look forward to the time when we can provide a service in the UK market as we do at home", he said, straight-faced, yesterday. In the meantime, he restricts his activities here to a few very special situations. Eagle Star was one where he netted a sizeable profit. Distillers probably another in which he is well placed, but the City is not hospitable towards arbitrageurs.

"The spread is just not wide enough." Translated this means that the leadly nature of the UK market generally ensures

that share prices shoot up to meet the price of an imminent bid, leaving little room for a manoeuvring arbitrageur. And Mr Boesky is far from happy with the unfathomable depths of our competition policy. "It seems to depend on what the commission members had for breakfast", he says. An arbitrageur needs to be able to take an educated decision, not a blind guess, on whether a bid will get official approval.

"This is the age of the mega-merger", believes Mr Boesky, who expects US merger activity to top \$200 billion this year. He is unoperturbed by the Federal Reserve Bank's restrictions on the issue of "junk bonds". "The biggest 'junk boond' are those issued by some governments, followed by some American states and cities." As they are a vital ingredient in many a mega-bid, Mr Boesky believes that junk hoods have a great future.

Mr Boesky was in London yesterday for the annual meeting of Cambrian & General Securities, an investment trust he runs and has a quarter shareholding. Since Boesky got involved in 1982 Cambrian's net assets have increased from £3 million to nearly £100 million thanks to its lucrative role as middle man in many a bid. More than 90 per cent of its assets are usually in the US. Apparently some British institutions are now taking stakes in Cambrian as a way of gineering testing the arbitrage market without tarnishing their image.

Mr Boesky has great admiration for Lord Hanson. "We sold him his 12 per cent stake in SCM, but we won't be following Hanson into Westland. Our skills are based firmly on asset valuation."

Hopes of rates gift buoy gilts market

"My car can turn on a sixpence, whatever that is," quipped Nybar Gulbenkian. What he would have made of yesterday's Rally That Never Was is anybody's guess. The market turned on nothing at all.

Buoyed by hopes of a free gift on rates from the weekend Group of Five meeting, the gilt-edged market was up about ½ point at the long end at the off, and streaming ahead. Futures were 14 ticks ahead, and by 12 o'clock a full point up. American traders were well to the fore.

The Government Broker enjoyed a flirtatious morning with the jobbers, as they bid him hard for his last remaining taplet, Treasury 10 per cent 1992. The GB refused to play ball at 92½, tossed his head at 92½, and only succumbed to the jobbers' entreaties at 92¾. In the light of what followed, these "hard to get" tactics proved highly rewarding.

After lunch, the official denials that G5 planned anything remotely connected with global rate-cutting were beginning to take their toll. The long swing back sharply, and futures shed a full point, dropping back in heavy trading volume to 108.22, down at that point on the day.

The detailed money supply figures for the banking month of December, which became available at 2.30 pm, contain some distinctly odd entries. Demand for National Savings, for example, has slumped, with Mr and Mrs Britain only stumping up some £28 million.

The Government Broker fared little better, unloading a mere £244 million of debt into the market. Total funding was just £305 million. This was substantially less than the seasonally adjusted Public Sector of Borrowing Requirement of £574 million, implying a sharp divergence already from the Chancellor's October 17 restatement of funding policy, which aimed to take out the PSBR no more and no less.

The figures do not make pretty reading. Bank lending of £2.1 billion was out only higher than statisticians expected, but the main push to the growth in private sector credit creation stemmed from the Bank of England's Issue Department's operations.

The logic of the analysis suggests that as £1.3 billion of sale and repurchase agreements with the clearers ran off, and the banks repaid from the market in huge quantities, in order to head off any rise in rates.

The Exchequer has been in deficit for most of the last fortnight, although the tax paying season ought to be in full swing, making the Exchequer coffers burst at the seams. Could these strange figures point towards yet another strategem to contain interest rates? asked Stephen Lewis of Phillips and Drew. Are the authorities simply refusing, not cashing the taxpayers' cheques?

£1.2bn Wellcome value likely

By Clare Doble

Wellcome, the pharmaceutical research company, is likely to be valued at £1.2 billion when its shares are put up for sale this month. It will be the largest private company to be floated on the stock market.

The lead-up to the flotation has been dogged by the departure of two key executives, Dr Pedro Cuatrecasas, the head of American research and Mr Bill Sullivan, the Americas region director.

The company, with its principal adviser, Robert Fleming, apparently considered abandoning the issue at one point but, with only three weeks to go, they decided to go ahead.

Mr Alfred Shepperd, chairman and chief executive of Wellcome, said there was no boardroom argument with Mr Sullivan. "He did not leave as a

result of a flaming row", Mr Shepperd said yesterday.

The pathfinder prospectus, out yesterday, gives a warning that the company's sales progress this year will be modest. In addition research and development and marketing costs are increasing and the rise of the pound against the dollar will have damaged profits. There is no profit cost, however.

Last year North America contributed 65 per cent of Wellcome's trading profits before research and spending.

The pathfinder sets out all the terms of the launch except the price of the shares. This will be finally agreed just before the final prospectus is published on January 29. The prospectus will be advertised two days later.

Applications for shares have to be in by February 7 and allocations will probably be announced on February 10.

The company has plans to launch several new drugs. Before Christmas an anti-depressant, Wellbutrin, was given approval by the American authorities and it will be marketed this year.

Research on a new drug for shingles and glandular fever is also being carried out and clinical trials for a treatment of AIDS are due to start in Britain, after encouraging progress in America. The AIDS product is unlikely to be available for some years.

Robert Fleming will try to restrict allocations to individual investors to 2.5 per cent of the company, but this limit will not apply once dealings start. Up to 10 per cent of the offer will be allocated to employees.

Tempus, page 23

Duke hits at industrial complacency

By Teresa Poole

Twenty years after exhorting British industry to pull its finger out, the Duke of Edinburgh had to admit yesterday, "The response to that call has not been brilliant."

The Duke was speaking as president of the Royal Society of Arts at the opening of Industry Year 1986.

He said: "Forty years ago industry was booming and we were enjoying full employment. Now, here we are in 1986, with over 3½ million unemployed, everyone lamenting our industrial decline and having to launch an 'industry year' campaign to explain to the people of this country that 'industry matters'."

The Duke said complacency was the root of the problem. "The most remarkable argument suggests that we have now created a post-industrial society, as if all the goods and services that we need, and have come to expect, will be produced by some sort of magic. For 'magic' read 'foreign competitors'."

Views and attitudes were not changing fast enough, he said. "Britain may never again be the only workshop of the world, but there is no reason whatever why it should not come to be recognized as one of the best and most successful workshops in the world."

One of the main aims of Industry Year is to create better links between education and industry. In a message to the launch the Prime Minister, Mrs Thatcher, said: "Industry Year will not succeed in changing attitudes unless people come to realize that industry can offer a life of opportunity and excitement. We cannot afford to have people acknowledge industry's worth - but look elsewhere for their careers."

Sir Terence Beckett, director-general of the Confederation of British Industry, said: "It is extraordinary that we in this country, where the industrial revolution began, need an industry year at all. In Japan and Germany it is industry year every year."

Davenports spurns £30m bid by Wolverhampton

By Cliff Feltham

Wolverhampton & Dudley Breweries yesterday offered £30 million for its Black Country rival, Davenports.

But remembering its failed attempt three years ago, it said it would bid only if it got the support of the board or the main shareholder, the Baron Davenport's charity trust.

However, the Davenports board later rejected the terms as inadequate.

Wolverhampton & Dudley already owns 15.7 per cent of

Davenports, but the bid hinges on the decision of the trust, which has almost 20 per cent.

Wolverhampton & Dudley is prepared to offer shares and loan stock worth 40p or 395p in cash if the trust starts selling before the end of the month - otherwise an offer of 375p in cash.

In the stock market Davenport's shares, changing hands at 267p a week ago before bid speculation started, closed at 365p, up 15p on the day.

US growth 'unlikely to continue'

By David Smith

Economies Correspondent

The recovery in the US economy is likely to prove unsustainable, according to a report by the Organization of Economic Co-operation and Development.

The report says that signs of hesitancy in American growth have appeared, while the current account deficit is forecast to widen from £128 billion (£89 billion) last year to \$146 billion this year.

Deficits of this size re-expected to add to protectionist pressure and produce US external debt of \$700 billion to \$800 billion, up to 15 per cent of gross national product, by the end of the decade, the OECD in its first report on the US economy since 1983.

The federal budget deficit, forecast by the Congressional Budget Office this week to rise to \$220 billion in this fiscal year, has pushed up worldwide interest rates, the report says.

Action to combat the deficit, which emerged this week in the form of spending cuts, including the first decline in the military budget since 1973, is an "urgent priority", according to the OECD.

Industrial production figures published yesterday showed a 0.7 per cent rise last month, after a 0.6 per cent November increase.

Borrowing on international capital markets reached a record \$26.1 billion last year, the OECD said.

G5 focuses on interest rates

The Group of Five finance ministers and central bankers, meeting in London this weekend, will talk about achieving lower world interest rates without upsetting exchange rate parities.

Two of the G5 members, Japan and France, believe that last September's meeting has succeeded in producing the desired drop in the dollar and that attention should now switch to the problem of high world interest rates.

It now appears that Mr James Baker, the US Treasury Secretary, did not initiate the idea of a co-ordinated interest rate strategy but was responding to proposals from Mr Noboru Takahashi, the Japanese finance minister.

The US Federal Reserve Board opposes suggestions that it should take part in such a strategy. Leader, page 13

MARKET SUMMARY

STOCK MARKETS	MAIN PRICE CHANGES	CURRENCIES
FT Ind Ord 1113.2 (+8.5)	RISES:	London:
FT All Share 674.85 (+2.83)	Turner & Newall 118p +25p	£: \$1.4385 (-0.0030)
FT Gov Securities 81.82 (+0.34)	Aerona Group 48p +10p	£: DM 3.5457 (-0.0047)
FT-SE 100 1384.5 (+4.0)	Biorchemics 26p +5p	£: Sfr 2.9970 (-0.0098)
Bargains 23.78	Fargabrook Group 24p +3p	£: PFr 10.8845 (-0.0074)
Deutschebank US\$ 106.90 (+0.45)	Cifer 10p +1p	£: Yen 251.50 (+0.40)
New York:	Inch Ken. Rubber 50p +30p	£ Index: 78.0 (unchanged)
Dow Jones 1,526.94 (-0.33)	Hempston Gold 145p +18p	New York (closed)
Tokyo:	Dixon (David) 23p +22p	£: \$1.4405
Nikkei Dow 13,027.13 (+98.53)	Gawyer Tn 8p +5p	£: DM 2.4825
Hong Kong:	Country & New Town 100p +8p	£ Index: 125.9 (unchanged)
Hang Seng 1797.22 (+13.58)	Munton Bros. 15p +1p	ECU £0.618992
Amsterdam:	Clyde Petroleum 66p +5p	SDR £0.760206
285.4 (+3.5)	Edmond Holdings 14.50p +1p	
Sydney: AO 1090.8 (+10.3)	Cluff Oil 30p +2p	
Frankfurt:	Centrovindia 138p +13p	
Commerzbank 2158.3 (-6.5)	Cape Industries 67p +4p	
Brussels:	Williamson Tea 470p +30p	
General 786.82 (+19.71)	Yellowhammer 128p +8p	
Paris: CAC 278.5 (+4.0)	Precious Metals 127p +8p	
	FKI Electronics 50p +8p	
	Telemark 113p +7p	
	FALLS:	
	Cps Computer 27p -5p	
	Central & S'wood 5.50p -50p	
	Davy Corp 10p -8p	
	Comb. Tech. Corp. 14p -1p	
	Dowry Group 183p -11p	

London: Bank Base: 12½%
3-month Interbank: 12½% - 12¼%
3-month eligible bill: buying rate 12½% - 12¼%
US: Prime Rate: 9.50%
Federal Funds: 7½%
3-month Treasury Bills: 7.17 - 7.18%
3-month bond price: 104½ - 104%

If your accountant suggests that a Rolls-Royce is beyond your means, we suggest you acquire a used Silver Spirit and a new accountant.

One day, you say, you'll own a Rolls-Royce. But not, says your accountant, just yet. This advertisement will show you that your accountant is wrong. It would like to suggest that the day on which you mark your life's achievements by becoming the owner of the best car in the world may be only weeks away. It would, in short, like to draw your attention to the compelling case in favour of buying a used Rolls-Royce.

THE FINANCIAL CASE

For between £20,000 and £35,000 for example, you can have a choice of Silver Shadow or Silver Spirit. It will be a magnificent example of Rolls-Royce engineering, craftsmanship and comfort. It will also be protected by the exclusive Warranted mechanical insurance scheme, available only from authorised distributors.

Depreciation on a car you buy at this price is often negligible over the first few years of ownership. (Earlier this year one authoritative trade value guide noted significant rises in residual values of Silver Spirit and Silver Spirit motor cars.)

Buy a very good Rolls-Royce, maintain it well, drive it for two years and you will have the greatest motoring pleasure of your life. What's more the rates of depreciation of other cars at similar prices will leave you in no doubt about the financial advantages of your two years of ownership of a used Rolls-Royce.

THE TECHNICAL CASE

Rolls-Royce say a car with 100,000 miles on the clock is "nicely run in." Every Rolls-Royce engine is assembled by hand and is engineered for long

years of trouble-free motoring. The Silver Spirit is typical of the magnificent cars available to the buyers of a used Rolls-Royce. It is the latest and the most technically advanced Rolls-Royce ever made. The automatic air-conditioning system can cope with the climatic variations of a journey from the North Pole to the Equator, without adjustment. And the suspension system is so sensitive that it even compensates for the gradual emptying of the petrol tank.

THE CORPORATE CASE

The Silver Spirit also represents a sound investment for you and your company in a less tangible way. A recent survey into the attitude of the public towards the Rolls-Royce car showed exactly what you'd expect: that 80% of people asked consider a Rolls-Royce to be the car most representative of quality and 78% believe it inspires wide respect. A Rolls-Royce still speaks volumes about the success and confidence of a company.

THE MOST CONVINCING CASE

There is nothing quite like driving a Rolls-Royce. An hour behind the wheel is more persuasive than words could ever be. A brief glance at classified pages will give you some idea of the range of Rolls-Royce and Bentley cars available. If you would like to experience any of them first hand, contact the dealer in question who will be pleased to arrange a test drive for you.



"The best car in the world", from authorised Rolls-Royce and Bentley dealers of Great Britain.

WALL STREET

Table with columns for Jan 15, Jan 14, and Jan 13. Lists various stock indices and prices including Dow Jones, S&P 500, and various sector indices.

Dow ahead at opening

Prices opened higher in active trading, and the Dow Jones industrial average, which rose 8.25 to 1527.29 on Wednesday, was up 2.75 to 1530.04 soon after the market opened.

Most markets saw setbacks yesterday - the spectacular exception being precious metals.

The Federal Reserve Board said United States industrial production rose 0.7 per cent in December, and the Labour Department reported that new claims for state unemployment insurance fell by 55,000 in the week to January 4.

COMMODITIES

Coffee weakened, amid nervous trading, and cocoa also fell. Lead slipped to the same price as in August 1976.

Foreign exchange markets were quiet in the morning, though the pound closed with a 30-point fall at \$1.4395, while its effective index ended unchanged at 78.0.

The rise in the gold price, possibly triggered, according to some sources, by Arab buying, prompted by selling of dollar-based assets in retaliation for the US sanctions against Libya, had surprisingly little effect on the dollar given its magnitude.

FOREIGN EXCHANGES

Table showing foreign exchange rates for various currencies including Sterling, Dollar, and others.

CANADIAN PRICES

Table listing Canadian stock prices for various companies like Alcan, Inco, and others.

MONEY MARKETS AND GOLD

As the price of gold soared to levels last seen almost two years ago - it touched \$380 (£264) on the bid side at one stage - the metal markets saw frantic demand.

EURO-CURRENCY DEPOSITS %

Table showing interest rates for various Euro-currency deposits in different currencies.

INVESTMENT TRUSTS

Table listing investment trusts and their performance metrics.

FINANCIAL TRUSTS

Table listing financial trusts and their performance metrics.

FINANCIAL TRUSTS

Table listing financial trusts and their performance metrics.

LIST ON FINANCIAL FUTURES

Table showing futures prices for various financial instruments like Treasury bills and bonds.

GOLD

Table showing gold prices and related market data.

EGGD

Table showing EGGD (Euro-Government-Gold) prices and related market data.

THE TIMES UNIT TRUST INFORMATION SERVICE

Table listing unit trusts and their performance metrics.

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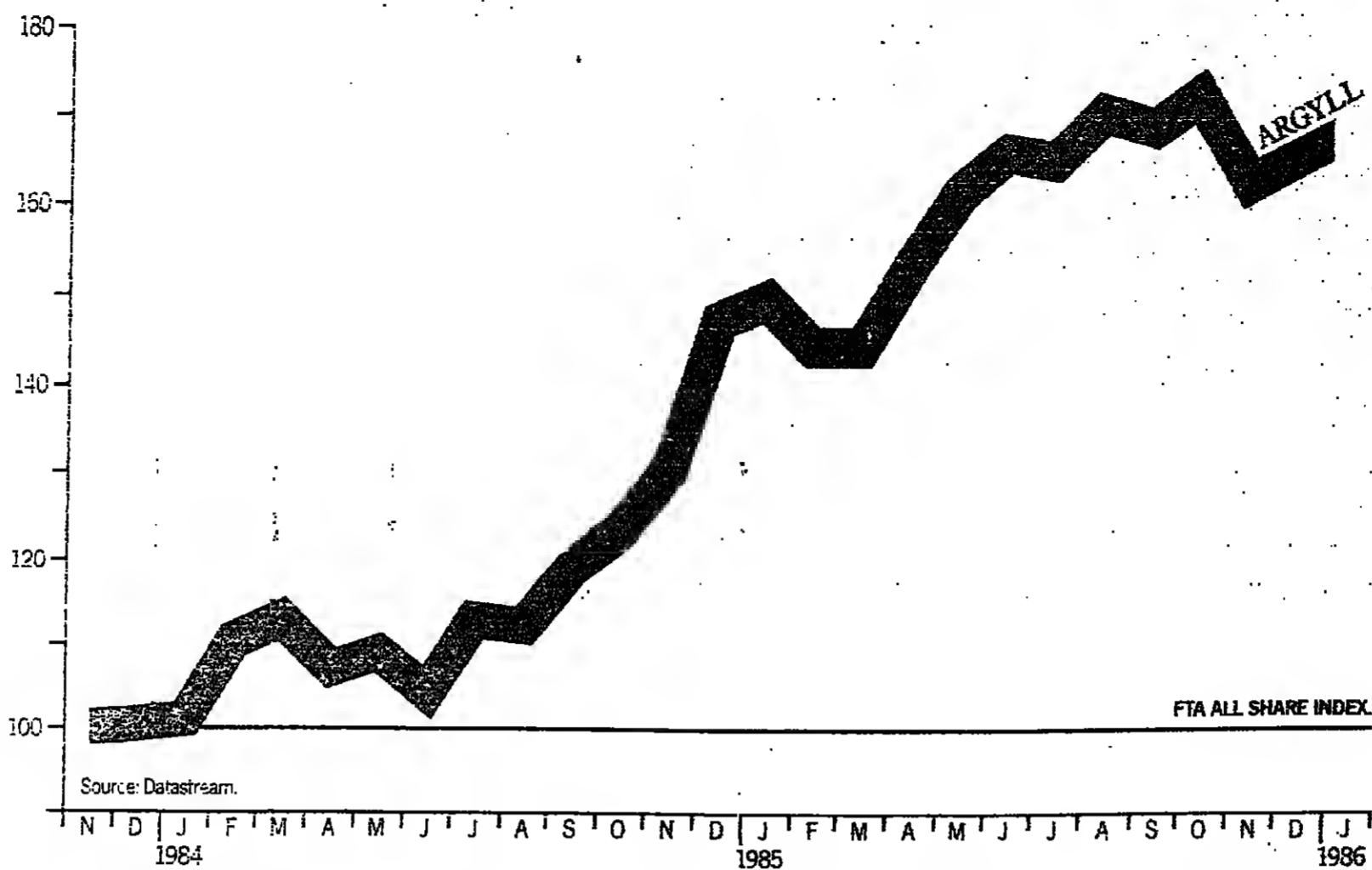
THE TIMES UNIT TRUST INFORMATION SERVICE

Table listing unit trusts and their performance metrics.

Large table containing detailed financial data, including company names, prices, and performance metrics across various sectors.

Vertical text on the right edge of the page, possibly a page number or reference.

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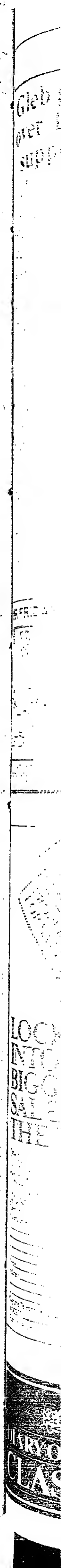


PERFORMANCE OF ARGYLL'S SHARE PRICE RELATIVE TO THE FTA ALL SHARE INDEX FROM 14th NOVEMBER 1983 TO 7th JANUARY 1986.

Is it surprising that Distillers' Pension Fund invests in Argyll shares?

460,000 ORDINARY SHARES HELD AT 31 JANUARY 1986. SOURCE: ARGYLL SHARE REGISTER

Argyll. We can revive Distillers' spirits.



YOUR OWN BUSINESS

Gleb glee over Tory support

By Teresa Poole

The Greater London Enterprise Board has won its first commitment of financial support from a Conservative borough council...

The decision by Ealing Borough to back Gleb means that 16 boroughs have agreed to take joint responsibility and to invest £100,000 a year each...

Last month a circular from the Department of the Environment to all London boroughs stated that the Environment Secretary, Kenneth Baker...



Battle station: Kevin Ross and Dave Humphrey with militaria

War and pieces

By Ian Waddell

Hidden behind London's Angel tube station is the headquarters of Quartermasters 'At The Angel', which supplies militaria from the First World War to the present day...

Goods are becoming more scarce as time goes by, but Quartermasters is still uncovering items in America and western Europe where there is a larger interest in all things military than here in Britain...

MR FRIDAY... So you drove 60 miles through floods, blizzards and storms? You're still 10 minutes late?

BRIEFING... The Institute of Directors has launched a pilot anti-red-tape hot line for its members in the West of England and Greater Manchester...

BUSINESS TO BUSINESS

01-278 1326 or 837 1099

FOR SALE... COFFEE ESTATE... Southern India... Apply Executors: Turner Kenneth Brown...

HEREFORDSHIRE INVESTMENT PROPERTY... Shop, 6 self contained flats recently modernised...

YIELD 12.25%... Manchester and Birmingham suburbs. Shop investments let...

COMMERCIAL PRINTERS... COLOUR AA, AA, A3, A2, A17 packages...

YOUR OWN EXCITING BUSINESS... Glazing photographs onto plates... POTTERY PORTRAITS Ltd...

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FOR SALE... Swimming Pool Safety Alarm System... Radiation, patent rights and world-wide manufacturing and distribution...

IF YOU'RE GOING INTO FRANCHISING GO FIRST CLASS... A franchise is more than a job it's a way of life...

STOP PRESS... We will be visiting Birmingham on Thursday, February 6th...

LION SECURITY SYSTEMS... N.S.C.I.A. approved alarm systems are now able to offer...

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TELEX, WORD PROCESSING, ELECTRONIC MAIL, COMPUTERISED ACCOUNTING... World-wide communications all for £38 per month...

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LIMITED COMPANIES... from £99.50 inclusive... Saria-Day Company Services Ltd...

Does your company require the following?... The creation of professional product/sales catalogues and brochures...

W2 (Off Edgware Road)... No Premiums. 24hr. access. Pristine furn. carpeted offices...

HOTELS AND LICENSED PREMISES... TIPPITS INN BATH ROAD, GLOUCESTERSHIRE...

BUSINESSES FOR SALE & WANTED... We are an active listed property company with substantial funds available...

RHYL, NORTH WALES... An excellent business opportunity. 200 seater restaurant, 40 seater fish & chip self service takeaway...

SMALL NATIONALLY ADVERTISED COMPANY... Specialising in the transfer of cine film to video to looking for a buyer...

LIFT OFF!... British Company, established 10 years making patented hand-operated mini forklift trucks...

LOCK INTO BIGGER SALES IN THE TIMES... To advertise your car, holiday home or property for sale in The Times Classified...

1986 - THE AGE OF PORTABLE COMMUNICATIONS... New product/concept... National back-up advertising...

AMBITIOUS AGENTS WANTED... in all areas of the UK by licensed real estate company... CASTLE PROPERTY CONSULTANTS...

ADVERTISING INCENTIVES... Pens, keyrings, lighters, T-shirts, etc. printed to your requirements at highly competitive prices...

Computer Appointments... Over 1.3 million of the most affluent people in the country read the classified columns of The Times...

SILICON VALLEY... Your own office in the San Francisco Bay area. British company will represent you...

JUST DESKS... Period and reproduction. Pedestal desks, Partner desks, Writing tables, Dayvents and Desk chairs...

WE TAKE THE COLD OUT OF COLD CALLING... Our Telephone Sales Team offer their expertise in all forms of marketing...

CONSULTING ROOM... 11ft 6ins x 9ft 6ins overlooking garden available in converted professional building...

MANAGEMENT CONSULTANT FCMA... 25 years industrial and commercial experience, seeks assignments...

LAKE DISTRICT... Lovely Country Guest House, situated in what must be the most superb position in all Lakeland...

IF MAKING IS A CRAFT - THEN SELLING IS AN ART... Set up market and sell your products throughout the UK...

PORTABLE TELEX... and WP facilities in a briefcase ONLY £690... Telephone (Cellular), Telex, Electronic Mail and Computer Power...

SURVEILLANCE MONITORING... and counter surveillance equipment for both the amateur & professional. Ring or write for price...

PALL MALL... No Premium. Pristine furn. carpeted offices with phone & fax. 24hr. access. Pristine furn. carpeted offices...

PEMBROKE COAST NATIONAL PARK... Little Haven, near Haverton Wood. Unique opportunity to purchase an important holiday complex...

BISHOPS STORTFORD... Prime main street shop premises in this booming town serving Standed Airport, suit many trades...

IBIZA... Highly attractive property with 4200 sq mt of land for sale with planning permission to develop as leisure complex...

PRINTING BUSINESS FOR SALE... Comprising A3 litho, letterpress, gold blocking and photocopying. Everything you need for comprehensive print shop...

FOR SALE... 24 TRACK SOUND RECORDING STUDIO fully soundproofed, custom built. South-West London area. £95,000 ono...

DIARY OF THE TIMES CLASSIFIED... Over 1.3 million of the most affluent people in the country read the classified columns of The Times...

Brain allays anxiety over his ankle and is back at the head of the pack

By David Hands, Rugby Correspondent

Steve Brain brought relief to the England selectors when he was able to join his colleagues in training yesterday for tomorrow's opening five-nations championship match against Wales at Twickenham.

However, Melville emphasized the importance of success for both sides in their first outing. A win builds confidence, defeat suggests change.

Burden of maul law rests on referee

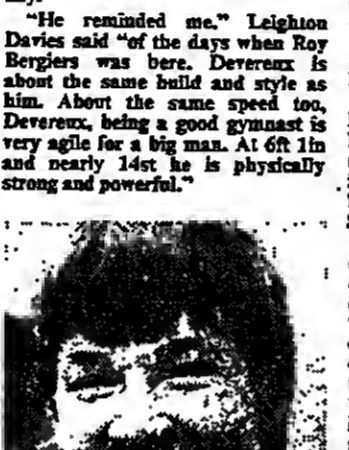
By David Hands

When England and Wales take the field tomorrow, the referee must stop play immediately.

New boy who has hallmarks of his famous predecessors

By Gerald Davies

John Devereux, the 19-year-old student, will play his first international match for Wales tomorrow at Twickenham.



Devereux: agile for his size

Maier makes the most of a tamed course

Michael Maier, the aggressive Italian who won his first RASB World Cup downhill race at Val d'Isere last month, recorded the fastest time in yesterday's training runs for the races on the Hahnenkamm mountain at Kirchbühel today and tomorrow.

England B extend tour

The England B tour to Sri Lanka will be extended by 12 days, it was announced by Lord's yesterday.

Barnett shuffles but fails to do the trick

Colombo (Reuters) - An unbroken three-wicket stand of 170 between Sumithra Warnakulasuriya and Asanka Gurusinghe put the Sri Lankan Board President's XI in a strong position against England B here yesterday.

Rackemann Uninspired proves his worth

Melbourne (Reuters) - India had little trouble brushing aside Australia in the World Series Cup night match here on Wednesday, winning by eight wickets before a record Australian total of 272.

Bobbleighing Hoppe ready to make up for previous failure

Wolfgang Hoppe looks set to complete his collection of medals in this weekend's European Championship, two-man competition here.

Laidlaw fit to turn out for Scotland

Scotland's scrum half Roy Laidlaw and prop forward Iain Milne have passed fit for tomorrow's international against France at Murrayfield.

Jones leaves North as Australians arrive

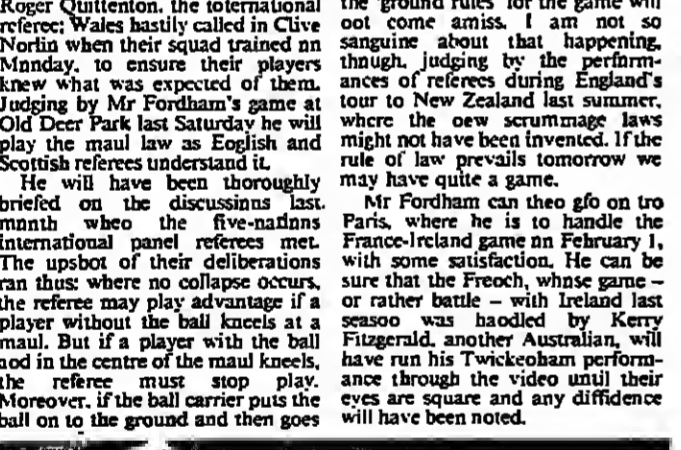
Alan Jones, the North of England Schools' Coach, has resigned after the announcement of the team to play the touring Australia Schools.

Queensland have rested most of their Australian international players

Queensland have rested most of their Australian international players for tomorrow's fifth match of the tour against Munster.

YACHTING French syndicate lends Challenge 12 to NZ

The French Marseilles-based syndicate who have been forced to withdraw from next month's United States Championship due to lack of funds, agreed yesterday to lend their yacht Challenge 12 to the New Zealanders.



Fordham: need for firmness in controlling scrum

IN BRIEF CCPR to investigate amateurism

Amateurism in sport is to be investigated by a committee of inquiry set up by the Central Council of Physical Recreation (CCPR).

TABLE TENNIS Prean responds to open criticism

Carl Prean, who has pulled out of the England team for the Cleveland Open this weekend, has been criticized by the tournament organizer, Alan Ransome.

SNOW REPORTS

Table with columns: Depth, State, Weather for various locations like Avoriaz, Courmayeur, etc.

ENGLAND Liverpool are punished

As if the Liverpool club did not have enough problems, the English Volleyball Association will fine them (though the amount has yet to be decided) without any money due from the National League sponsors.

BRITISH GAS THE WINNING TEAM

The Gas Challenge, England v Wales, 18th January 1986, is the winning team.

Table with columns: Depth, State, Weather for various locations like Bardonecchia, Cortina, etc.

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BRITISH GAS THE WINNING TEAM logo and text.

Sports Commentary

David Miller

The report by Mr Justice Popplewell's committee of inquiry into safety and control of sports grounds had to investigate two unrelated problems, provoked by the Bradford fire and the Birmingham riot. The report will do more to help self fire extinguishers than it will to occupy the courts and save the game of football.

It will do nothing to forestall similar tragedies in the future which is later asked to take into account - over which the Home Office has published a report, has no jurisdiction. It should have more forcefully demanded that the FA and Football League bring their own jurisdiction over what happens on the field firmly into line with civil law.

Justice Popplewell states mostly that he now knows much more about football hooligans but doubts if he is any the wiser, a condition which frustratingly afflicts nearly all individuals vested with responsibility for administering our society, from the FA to the police.

Yet every parent, teacher and leader in the land is collectively responsible to help reverse a general rot which contaminates the ancient Romans and Greeks. The most distressing fact to emerge in the inquiry is that more than 50 football League clubs failed to reply to a request for ground and crowd information.

Diverse threats of fire and violence

Of the 35 main recommendations only five concern safety from human violence as opposed to structural failure. It was perhaps unreasonable to have expected the inquiry simultaneously to deal with separate problems but the fact is that however ghastly a stadium fire, it is a rare occurrence compared with the persistent violence, not just in football, which disfigures our society.

The report advocates extension of the Safety of Sports Grounds Act to cover all stadiums in all sports holding over 10,000 and to require fire certificates for any stadium or indoor hall accommodating more than 500. This is common sense in an area, where laxity had allowed safety to become taken for granted until 56 died horrifically at Bradford. In this respect the report is admirable.

The provisions for reducing crowd violence are welcome so far as they go. It is recommended that the police should have statutory unfettered right of search of anyone entering a football ground; that there should be a new offence of disorderly conduct at a sports ground; and that power of arrest should be widened, for example to make close circuit television permissible evidence.

The report advocates that alcohol restrictions recently imposed should be relaxed for executive boxes, which is not to create one law for the Tories and another for the terraces, but is admission of important and unproven sources of revenue. However, on the introduction of membership schemes, demanded by the Prime Minister, the report has retreated, recommending partial schemes.

Law is neglected on the playing field

Yet it is not just against the traditional resistance of clubs to administrative change that the committee has stepped forward where it is needed. Football is a violent sport, often too violent, with an increasingly aggressive minority audience. There should have been some warning to the FA and Football League to take more positive action against offences on the field.

Justice Popplewell points out that provocative behaviour of cricketers and tennis players is just as bad. Equally, how can an international rugby player, seen by millions on television, break an opponent's jaw with an upper cut and not face criminal action?

Should FIFA be sued for negligence for lack of control in the 1982 World Cup, for failing to act on Schuster's foul?

The civil or criminal law as it applies to spectators should be applied to performers, who are defined by television, while they are competing. If this argument was carried to its conclusion, managers and coaches would face civil action for aiding and abetting violent acts, which, in recent years, some have boasted that they do.

In those areas where the Popplewell report is concerned with violence it aims only at spectators and even then makes no recommendation on the offence of obscene abuse, especially racial abuse. However, what happened at Luton, Birmingham and Brestols is something for which the entire community must answer. The silence of some football clubs is deplorable.

Altercation with chairman forces Saunders to resign at Birmingham

By Stuart Jones, Football Correspondent

Ron Saunders yesterday voluntarily became the sixth managerial casualty of the season. He walked away from his post at Birmingham City, who were humiliated by a second round of the FA Cup by Altrincham on Tuesday, after a bitter row with the new chairman, Ken Wheldon. The club and Saunders are to make official statements today.

Chamberlain breaks Albion's resistance

By Dennis Shaw

England cup Mark Chamberlain made a dramatic entry as substitute nine minutes from time to head Sheffield Wednesday into the fourth round of the FA Cup last night.

Albion had fought back twice from behind in the third round replay, but Chamberlain's 87th minute goal came too late for them.

There was an ominous sharpness about Wednesday as they set about correcting their minor mistakes at their first attempt at Hillsborough. They were a goal clear through a Marwood penalty after 10 minutes, and after Hunt had equalised in the 38th minute, the Chester-le-Street based team ahead again two minutes before the break.

alinity unless he was able to step into the market place.

The graph began to curve downwards for Saunders in 1984 during his second season at Birmingham. They were relegated to the second division. He immediately led them to promotion as the runners-up behind Oxford United last season but Keith Coombes, Wheldon's predecessor, refused to offer Saunders any financial assistance to strengthen his squad.

Birmingham's position is now precarious. Since beating Bristol Rovers in the second leg of a Milk Cup second round tie on October 8, they have not won a single game. After gaining only 14 goals in their 25 first division fixtures so far, they are five points below the safety line.

Liverpool tied to the Bridge

By Stuart Jones

Liverpool and Chelsea could meet three times in cup matches during the season, following the Milk Cup semi-final draw. They are already due to meet in the fourth round of the FA Cup in 10 days' time, in a match to be played at Anfield.

Both clubs have still to win their quarter-final ties. Chelsea must win at Queens Park Rangers and Liverpool at Manchester City. Both clubs, in fact, went into the semi-final draw after the all four Milk Cup quarter-finals were postponed this week because FA Cup ties had priority.

later to go on to win the European Cup, defeating Bayern Munich in Rotterdam.

Saunders, who scored more than 200 goals for Everton, Gillingham, Portsmouth, Watford and Charlton Athletic, started his managerial career at Oxford City, resigning, he told *Newcastle City*, the first division for the first time and to the League Cup final in 1973 where they lost to Tottenham.

The following year his Manchester City side suffered a similar fate, beaten by Wolverhampton Wanderers. But in 1975 and 1977 he led Villa to Milk Cup successes over Norwich and Everton respectively before achieving his greatest triumph in 1981 by breaking Liverpool's domination of the English title that was otherwise last for five years.

Threat of split recedes for Scottish clubs

By Stuart Jones

Scotland's premier division 'rebel' clubs are on the brink of winning their fight for an administrative shake-up without the need to break away. This follows another Scottish League management committee meeting yesterday.

The rebel clubs are to meet the management committee, probably within a few days.

The on-off transfer of the Danish international full-back John Siveback to Manchester United will finally be completed today. Siveback's £300,000 move from Vejle to Old Trafford should have gone through at the end of last year, but United pulled out when medical checks revealed the player had a pelvic injury and a suspected hernia. Since then, however, fresh medical evidence has given 24-year-old Siveback a clean bill of health.

McEnroe loses his way in Garden

From Richard Evans, New York



Hitting back: Gilbert on his way to victory yesterday

John McEnroe was beaten 6-7, 6-4, 6-1 by Brad Gilbert, an American ranked 18th in the world, in the first round of the Nabisco Masters at Madison Square Garden on Tuesday.

McEnroe, who was not fit either physically or mentally to compete at this level of tennis.

Boxing: Tubbs faces a risky challenge

Albino (Reuters) - Tony Tubbs, the World Boxing Association heavyweight champion, will be going against a contender when he steps into the ring today to make his first title defence.

Tubbs is meeting a dangerous contender, fellow-American Tim Witherspoon, who has captured 15 round defence of the title he captured last April from American Greg Page.

Rugby League: Terms are agreed on Whitfield

Wigan have agreed terms with Halifax to transfer Colin Whitfield, the utility back, for a fee of £20,000.

Whitfield was the regular right wing three-quarter for Wigan until he recently lost his place to Ray Morley, the South African.

Chaos at Milan makes England pair doubtful

Ray Wilkins and Mark Hateley are still not sure whether they will be able to join the England team to play Egypt in Cairo on January 29.

The chances of both of them being released have been lost amid the chaos at AC Milan, which is awaiting their Italian club, AC Milan.

New Wycombe manager faces a daunting task

Alan Gane, the new manager of Wycombe Wanderers, is likely to find the remaining four months of the season a demanding test of his ability.

Gane, who has taken over from Paul Bence, takes over a side in danger of being relegated from the Football League.

Italy unseeded

Berne (Reuters) - The World Cup holders Italy will not be seeded in the qualifying round of the 1986 European Championship.

The Football Union (UEFA) official said yesterday. England and Denmark were ranked joint first and the other five seeded teams in the reverse order.

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Fierce pace set by Sutton and Tway

From John Ballantine, Palm Springs, California

Hal Sutton, the PGA champion and Tournament Players' title holder of 1983 when he led the money list, and Bob Tway, a little known but determined man from Oklahoma, set a fierce pace at Bermuda Dunes in the first round of the Bob Hope Chrysler Classic. Each had a score of 65.

Another player who will be unfamiliar is Gene Sauer, who scored 67. He is from Georgia and has been on the tour for only one season. Last year his best finish was fourth in the Buick Open, his best effort being runner-up in the Quad Cities Open.

St Cloud line-up

Patricia Johnson, who plays at Pye and Kenil in South Wales, heads the England under-21 team in the Vilmorin Cup amateur championship at St. Cloud, France, on March 25 and 27.

The side will be captained by Pat Smillie, from Leeds, a current member of the full England team.

Campaign to cost £1.5m

The Sports Council and the Milk Marketing Board have joined forces to mount a £1.5 million campaign to increase participation in sport. The scheme which will be launched in May 1987.

Entitled 'What's Your Sport?', the campaign will build on the Sports Council's long-standing programme of incentives, for the first time, the use of television advertising throughout the United Kingdom.

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FOR THE RECORD

BASKETBALL	BADMINTON
CARLSBERG NATIONAL LEAGUE: First round winners: Gent, Leuven, Antwerp, Kortrijk, Brugge, Ghent, Waregem, Oostende, Mechelen, Melle, Lede, Dendermonde, Hasselt, Mol, Turnhout, Brno, Antwerpen, Gent, Leuven, Antwerp, Kortrijk, Brugge, Ghent, Waregem, Oostende, Mechelen, Melle, Lede, Dendermonde, Hasselt, Mol, Turnhout, Brno.	TAIPEI Masters Championships: Steve's first round: 5 Butler (USA), 15-8, 15-12, 15-12; Second round: 15-8, 15-12, 15-12; Quarterfinals: 15-8, 15-12, 15-12; Semifinals: 15-8, 15-12, 15-12; Finals: 15-8, 15-12, 15-12.

FOR THE RECORD

BASKETBALL	BADMINTON
EUROPEAN CUP: Quarter-finals: 2-0, 1-0, 1-0, 1-0; Semi-finals: 1-0, 1-0; Finals: 1-0, 1-0.	EUROPEAN CUP: Quarter-finals: 1-0, 1-0, 1-0, 1-0; Semi-finals: 1-0, 1-0; Finals: 1-0, 1-0.

Atime for flowers.



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Palace Properties
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South Kensington W1
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Today's television and radio programmes

Summaries by Peter Dear and Peter Davalle

BBC 1

- 6.00 Ceefax AM. 6.50 Breakfast Time with Frank Bough and Debbie Greenwood...

tv-am

- 6.15 Good Morning Britain presented by Anita Diamond and Nick Owen...

ITV/LONDON

- 6.25 Thames news headlines. 8.30 For Schools: the natural history of ordinary surroundings...

BBC 2



Richard Burton: Look Back In Anger, Channel 4, 11.30 pm

BBC 2

- 8.00 Ceefax. 8.30 Daytime on Two: Part two of a French language course...

CHANNEL 4

- 2.30 A Question of Economics. The second programme in a Peter Donaldson's series...

CHOICE

Rather a layman's approach to great art. LOVEJOY (BBC 1, 9.30pm) is about the antique business...

Radio 4

- On long waves, 1 also VHF stereo. 5.55 Shipping. 6.00 News Briefing.

Radio 3

- 6.55 Weather. 7.00 News. 7.05 Morning Concert: Saint-Saens's symphonic poem Phaedon...

Radio 1

- 6.00am Adrian John. 7.30 Mike Read. 8.30 Simon Bates. 9.25 Frank Parrtridge...

Part one. Musica Transalpina, or the Italian influence in England, from Dowland to Llewellyn. 8.10 Verifying Facts. Myfanwy Talog reads Hirt Prichard Jones's story...

ENTERTEINMENTS

Theater listings for various venues including National Theatre, Lyric Theatre, and others. Includes titles like 'The Firm', 'The Merchant of Venice', and 'The Firm'.

Moscow tries to bring Yemen factions together

By Nicholas Ashford, Diplomatic Correspondent

Troops loyal to President Ali Nasser Muhammad continued their drive against anti-Government rebels in Aden and the surrounding hinterland yesterday amid reports that rebels of the two rival South Yemeni factions had held peace talks in the Soviet Embassy in the capital.

Meanwhile, the first Westerners to have escaped the fighting have described how they were saved by a Soviet sea captain.

According to Western diplomatic sources, fighting resumed yesterday morning after a fairly quiet night. Government forces appeared to be trying to drive the rebels out of the embassy area around Khormakar and the Crater district of central Aden. The sound of heavy gunfire was also reported from the hills to the north. At one stage yesterday Aden radio reported that a five-member committee had been set up to oversee the restoration of basic services in the city and to guarantee peace and security. It also reported that a ceasefire had been arranged for yesterday morning. That ceasefire did not, however, take hold.

Lebanon crisis deepens as militia chief flees

Beirut (Reuters) — Mr Elie Hobeika, the Christian militia chief who signed a Syrian-brokered peace plan for Lebanon, fled the country yesterday, sparking a crisis that threatened to erupt into open warfare.

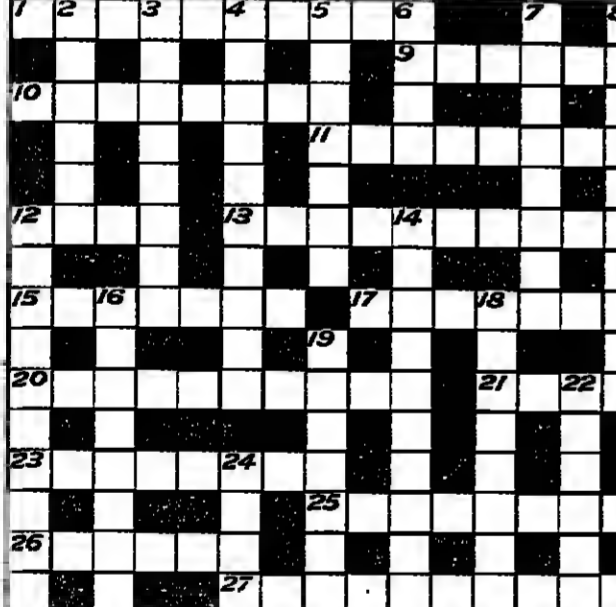
Military and presidential sources said that Mr Hobeika, aged 29, had resigned as commander of the Lebanese Forces militia and left for exile in France. He was the main Christian champion of the pact signed less than a month ago to end the civil war in Lebanon, and his sudden defeat by hardline Christian militia rivals dashed hopes of lasting peace among the many militia forces in Lebanon.

Trapped in his east Beirut headquarters on Wednesday night, he killed some 200 people. Mr Hobeika was forced to negotiate his own surrender and that of his men.

Today's events

Exhibitions in progress One for the pot: poaching over the centuries; The Smith Art Gallery and Museum, 40, Albert Rd, Stirling, Wed to Sun 2 to 5, Sat 10.30 to 5 (ends Feb 9). Artists in the Theatre: gallery-scale reconstructions of five early 20th century stage works; Hanton Gallery, The University, Newcastle upon Tyne, Mon to Fri 10 to 5, Sat 9 to 4.30 (ends Feb 21). Visions of Albion: photographs by Patrick Sutherland; Work by the Peterborough photographic society; Peterborough Museum and Art Gallery, Peterborough, Tues to Sat 12 to 5 (ends Feb 8). Trevor Stubley: retrospective; University Gallery, Leeds University, Mon to Fri 10 to 5 (ends Feb 7). The Art of Natural History: paintings of plants and insects from South America by Maria Sibylla Merian; Natural History Gallery, Merseyside County Museum, William Brown St, Liverpool, Mon to Sat 10 to 5, Sun 2 to 5 (ends March 31). Three Painters: works by James Alan and Neil McGregor; Doncaster Museum and Art Gallery, Chequer Rd; Mon to Sat 10 to 5, Sun 2 to 5, closed Fri (ends Jan 26). Friends of Chelsea: computer graphics in colour; Royal West of England Academy, Queen's Rd, Bristol; Tues to Sat 10 to 5.30 (ends Jan 25). Victorian watercolours and drawings; The Wykeham Galleries, High St, Stockbridge, Hants; Tues to Sat 10 to 5 (ends Feb 11). Why War: paintings by Charles Speoclay; Harris Museum and Art Gallery, Market Square, Preston, Lancashire; Mon to Sat 10 to 5 (ends April 5).

The Times Crossword Puzzle No 16,946



- ACROSS
- 1 Stop turning to limit, say (10).
- 5 Sort of sniner I never could be (6).
- 10 Use money to get influence (8).
- 11 Subordinate event for parties - in what way? (4-4).
- 12 Actress never meeting 24 (4).
- 13 The cloth Sir hoped to order (10).
- 15 The enemy can't see if it's effective (4-3).
- 17 Brave following Indian respectfully (7).
- 20 Control made stronger (10).
- 21 Minimal change in modest text (4).
- 23 End of the line for a birdbrain (8).
- 25 Effect of poison some murderer got to mild (8).
- 26 Antelope or bird (6).
- 27 In French, very successful candidate is intruder (10).

- DOWN
- 2 Contact 24 said to recognize strike (6).
- 3 Old man; perhaps, in a tree? (8).
- 4 Pardoning a disorderly musician (5-5).
- 5 Debatable theory about quiet Greek poet (7).

Prize Crossword in The Times tomorrow
ANSWERS TO CROSSWORD PAGE 10

Smiles of gratitude for the gift of a second life



Kicking up their heels at the tree-planting ceremony were Mr Nigel Olney (left), Britain's longest surviving heart transplant patient, with other transplant recipients (from left) Mr Derrick Morris and Mrs Pat Byng (hearts), Mr Ken Pinfield and Mrs Kathleen Stanley (liver), Mr Richard Tothill (cornea) and Mr Graham Frew (kidney) (Photograph: Harry Kerr)

By Thomson Prentice Science Correspondent

They owe their lives to strangers, and yesterday they went to a soft Cambridgeshire hillside to show their gratitude. In a simple ceremony, some of the people whose only hope of life was a transplant operation commemorated those whose early deaths had led to their survival. Along with the relatives of the deceased, they planted an avenue of slender saplings that will grow into a memorial to them.

Six years ago Mr Nigel Olney was dying from heart disease. He is now Britain's longest surviving heart transplant recipient. He had a special word for Mrs Doreen Castle, the brave and cheerful widow of Mr Keith Castle, who held the title until his death last year.

Mr Olney, aged 41, said: "Apart from the doctors and medical staff, I don't know who I owe my life to. But I honour that person today." Since the operation, he has devoted most of his time to raising funds for Papworth Hospital, near Cambridge, where the surgery took place. Mrs Castle said: "I felt I had to come to remember Keith and to support the whole idea of organ transplants."

Yesterday's ceremony was organized by the British Organ Donor Society, known also as Body, which was formed to offer comfort and support to the relatives of dead donors. The group was founded by Mr John Evans and his wife Margaret, of Cambridge, after the death of their son, David, aged 20, in August 1983. The victim of a motor cycle

accident, David had carried a donor card permitting the use of his heart and other organs. Mr Evans took part in the tree-planting in Wimpole Park, near Cambridge. Transplant surgeons and hospital representatives also took part in the ceremony. Mr Richard Sells, president of the British Transplantation Society, said: "Many families gain tremendous comfort from the knowledge that some good can be achieved out of an otherwise totally tragic situation. Today's ceremony celebrates this wonderfully charitable attitude."

Fowler cash boost for heart transplant programme

By Nicholas Timmins Social Services Correspondent

The Freeman Hospital in Newcastle-upon-Tyne was designated yesterday as Britain's third heart transplant centre, with spending at the two existing centres, Hatfield Hospital in Middlesex and Papworth Hospital, Cambridge, rising by about 40 per cent. In all, almost £2.6 million is being spent on heart transplants in the year from April 1, against just under £1.7 million in the current year. The Freeman Hospital, where five heart transplants have been carried out in the past year, with four patients still alive yesterday it was "delighted" it had been chosen as the third centre. Mr Chris Spry, general manager at Newcastle Health Authority, said the £2.24 million

which the teaching hospital is being given will allow about 12 transplants to be carried out in the next year. Funding for Papworth Hospital is being increased from £846,000 to just over £1.3 million. The decision to expand the programme was taken on the advice of the Supra Regional Services Advisory Group, which said it foresaw a gradual expansion in heart transplan-

tation over the next three years. The expansion would be concentrated in Newcastle until its level of activity was comparable with the other two centres. The extra money was announced by Mr Norman Fowler, Secretary of State for Social Services, together with an extra £775,000 for the liver transplant programme, taking its spending to £2.5 million and with increases for other highly specialized services.

Gomba loses to JMB over debts

Continued from page 1. time to pay. But the judge rejected his claim. He said Mr Shamji was a trader who lived by negotiating deals. "The glimpse that this case has given me of Mr Shamji in action as a negotiator suggests that he employs patience, shrewdness, and courtesy but also, it must be said, prevarication and falsehoods."

Maze escapers held in Dutch swoop

Continued from page 1. From gunshot wounds and another three in explosions. McFarlane had attempted to escape from the Maze in 1978 dressed as a prison warder and while on the run during the past two years is suspected of being involved in the kidnap of Mr Don Tiede, stores executive in the republic for a ransom of £3 million and organizing terrorists attacks on border areas.

Food prices

Recent storms at sea have not helped the fishing industry. However, most fishmongers have a reasonable supply of herrings, sprats and skate wings, but the best is by either cod or haddock fillets at £1.75 and £1.75 a lb respectively. Lemon and Dover sole, however, are not at their best and are sharply up in price at £2.48 and £3.36 a lb on average. Boned fresh herrings are each up about 3p a lb to 36p and 40p a lb. Home produced lamb prices are still rising, with most cuts up a further 3p a lb. Whole leg ranges from £1.50 to £1.94, loin chops £1.64 to £2.10 and shoulder 86p to £1.20 a lb. New Zealand lamb is cheaper this week and probably better quality, whole leg £1.28 to £1.59, loin chops £1.20 to £1.60 and shoulder 59-64p a lb. Beef topside and silver-side are down about 2p a lb to an average of £1.18, but other cuts are a little more expensive; rump steak £2.95, sirloin steak £3.34 and pot roast £1.68 a lb. Leg of pork down about 4p a lb to between 89p and £1.33 a lb; shoulder is also slightly cheaper at 98p to £1.45 and loin chops £1.28 to £1.50.

Roads

Wales and West: A58: Long term roadworks on the Salisbury to Fordridge road at Bodenham. A28: Lane closures on the route to Plymouth road, on hydraulic bypass. A4: Various lane closures on both carriageways between junctions 22 and 24. The North: A6: Resurfacing at Stretford, Bedfordshire. A1: Resurfacing and widening at junction 11 of Dunbarton. A71: Roadworks reducing roadwidth at junction 9 of the A1 near Barmouth. A1: Resurfacing and widening at junction 11 of the A1 near Barmouth. A1: Resurfacing and widening at junction 11 of the A1 near Barmouth. A1: Resurfacing and widening at junction 11 of the A1 near Barmouth.

Top films

The top box-office films in London: 1 A Chorus Line, 2 Back to the Future, 3 Year of the Dragon, 4 Santa Clause: The Movie, 5 Silverado, 6 Letter to Breznev, 7 My Beautiful Laundrette, 8 Best Defence, 9 Plenty, 10 Prizzi's Honour.

Top video rentals

(1) Ghostbusters, (2) Gremlins, (3) Beverly Hills Cop, (4) The Terminator, (5) Defiance of the Wind, (6) Water, (7) The Last Starfighter, (8) The Neverending Story, (9) Armageddon, (10) Terminator 2.

The pound

Bank of Australia \$1.48, Bank of Canada \$0.72, Bank of France \$6.56, Bank of Germany \$1.94, Bank of Italy \$1.36, Bank of Japan \$1.62, Bank of New Zealand \$0.65, Bank of Spain \$1.66, Bank of Switzerland \$0.72, Bank of USA \$0.95, Bank of West Germany \$1.94.

Parliament today

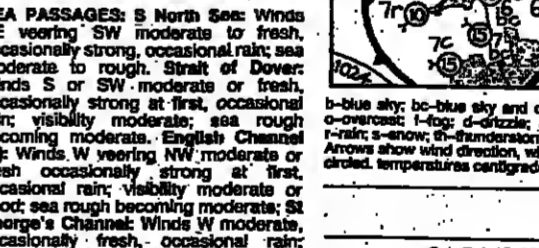
Commons (9.30): Private Member's Bill, Disabled Persons (Services, Consultation and Representation) Bill, second reading.

Snow reports

Country	Depth (cm)	Conditions
Austria	100-200	good
France	100-110	good
Germany	100-110	good
Italy	100-110	good
Spain	100-110	good
Switzerland	100-110	good

Weather forecast

Frontal systems will cross the country from the W. Gam to midnight. London, SE, central S, E England, East Angles, E Midlands: Mostly cloudy, morning, perhaps drizzle, b-k in places, becoming dry for a time, more rain later; wind S veering W light or moderating; max temp 7C (45F).



Lighting-up time

London 4.54 pm to 7.27 am, Edinburgh 4.45 pm to 8.07 am, Manchester 4.53 pm to 7.44 am, Newcastle 5.21 pm to 7.43 am.

London

Yesterday's temperature at midday: 11.5°C. Wind: S, gusty. Sun: 1.5 pm to 5.4 pm.

City	Temp	Wind	Cloud
London	11.5	SW 10-15	Partly cloudy
Birmingham	10.0	SW 10-15	Partly cloudy
Manchester	10.5	SW 10-15	Partly cloudy

High tides

Location	Time	Height
London Bridge	4.45	4.7
Aberdeen	11.43	4.0
Cardiff	11.28	4.1
Edinburgh	10.38	4.1
Exeter	10.34	4.1
Falmouth	10.28	4.1
Glasgow	10.28	4.1
Harwich	11.15	4.1
Hull	10.28	4.1
London	10.28	4.1
Lyons	10.28	4.1
Manchester	10.28	4.1
North Shields	10.28	4.1
Newcastle	10.28	4.1
Portsmouth	10.28	4.1
Reading	10.28	4.1
Sheffield	10.28	4.1
Southampton	10.28	4.1
Stirling	10.28	4.1
Tide	10.28	4.1

Around Britain

Region	Sun	Rain	Max	Min
East Coast	1.2	3	37	30
London	1.2	3	37	30
West Coast	1.2	3	37	30

Abroad

Country	Temp	Wind	Cloud
Paris	11.0	W 10-15	Partly cloudy
London	11.5	SW 10-15	Partly cloudy
New York	10.0	W 10-15	Partly cloudy